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CONTENTS

The Government and the Colleges in Wartime Educational Record 1
Helping Pupils Adjust to War . . . . . Social Education 5
The Future of American Education. II . . . . . School Review 8
Pre-Induction Training in the Schools . . . . . School Shop 12
Stop the Junior Crime Wave . . . . . School Executive 14
Controversial Issues in the Teaching of Reading
University of Chicago Monograph 17
Preflight Aeronautics in the Secondary Schools
University of Michigan School of Education Bulletin 21
Techniques of Inservice Education
North Central Association Quarterly 24
Physical Fitness in High Schools
Journal of Health and Physical Education 29
But You Can Learn, Can't You? Michigan Teacher Education Topics 32
How Secondary Schools Are Helping to Win the War
Bulletin of the Department of Secondary-School Principals 34
The Improvement of Handwriting . . . Elementary School Journal 37
Elementary School Children and the War
New Jersey Educational Review 40
A High-School Freshman Learns to Read and Write . Visual Digest 42
Making Theories Work . . . . . High School Journal 45
A Functional Marriage Course . . . . . Junior College Journal 49
La Donna E Mobile . . . . . Modern Language Journal 52
Executing a Farm-Machinery Repair Program
Agricultural Education 55
NEA Acts in Salary Crisis . . . . . Journal of the NEA 58
Educational News 61
What Students Think . . . . . Fortune **Cover 4**

lume VIII *December, 1942* Number 4

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THE GOVERNMENT AND THE COLLEGES IN WARTIME

SAMUEL P. CAPEN

In the Educational Record

IT is natural for the government of a nation at war to make mistakes, but it seems unnatural and unnecessary that the government of the United States should make the same mistakes twice within a generation. Yet that is exactly what our government has done in one of the most critical phases of its war effort.

Machines do not win victories. Men win victories. Men who can operate machines and make them; men who can devise machines; men who can discover and apply the principles and processes of physics and chemistry that underlie the making and the use of numerous instruments and materials required by a nation at war; men of superior intelligence and extraordinary skill; men of initiative, competent to assume the responsibilities of command on land and sea and in the air; men who can plan and administer both civil and military undertakings; thousands of men prepared for leadership or for highly specialized tasks; and a steady and increasing supply of such men, oncoming thousands and tens of thousands.

Responsible officers of the government, both in the armed forces and in civilian branches, recognized this elementary truth in April 1917. Their successors recognized it in December 1941. Throughout 1917, however, the directors of the government's military and civilian policies, failed in the conversion of the agencies which train and educate men and speed up the production of human materials in the kinds and amounts required. Instead they followed a policy which slowed down and all but disrupted these agencies. The nation had been nearly nine months at war before the policy was changed—barely in time to avert a national disaster. The government's policy of 1942 toward the agencies of higher training has repeated step by step the mistakes and inconsistencies of 1917.

In 1917 and in the first half of 1942 those in authority stated repeatedly that the colleges and universities must be looked to to furnish engineers, scientific specialists, administrative personnel, and junior officers and they kept urging young people to enter colleges and professional schools and to remain there until called by the government for war service. In both cases government spokesmen declared (and col-

lege officers endorsed the declaration) that the draft must be democratic and that students could not enjoy a privileged status with respect to it. In 1917 students were encouraged to join various corps, but with "inactive" status, while courses of study were being completed. Similar arrangements were made in 1942; and both the Navy and the Army established special enlisted reserves for students who were expected to remain in college while finishing their basic technical education. But in 1917 and in the first half of 1942 what the services gave with the one hand they took away with the other—from themselves.

During the corresponding periods, recruiting officers from all branches made the rounds of the colleges urging students to volunteer at once for active duty. Various branches of government contracted with institutions for special types of training and research, the contracts of one branch differing in terms and requirements from those of all the others. In each case it was seen that the armed services must depend on the colleges and universities not only for technical specialists but for the preparation of huge numbers of junior officers. Yet, through volunteering and the operation of the draft student bodies were seriously depleted and hundreds of teachers called to serve as specialists in the Army, Navy, and in civilian branches of the government. The departments from which these men were taken were precisely those which had been asked to carry a heavier burden than usual in order to prepare students for war service—the departments of science, engineering, and medicine.

Throughout 1917 and the first half of 1942 numerous committees representing colleges and universities importuned the government to adopt a uniform policy toward them, to avail itself of their immense training facilities, to clarify the position of students with respect to military service. Early in 1918 the government finally acted to clear up the confusion which had hampered the efforts and minimized the services of collegiate institutions and took steps to gear them into the mobilization and training machinery of the armed forces. The method used may not be applicable to the conditions of 1942. It was one of failures as well as successes.

The agency created then to conduct relations with institutions of higher learning, to coordinate their activities, and to exploit their resources for the nation's military undertaking, was located in the War Department and was called the Committee on Education and Special Training. A civilian advisory board was associated with it and represented the collegiate institutions; the United States Bureau of Education; organized labor; and several specialized education groups. At the time the committee began

its work the Army needed 200,000 more trained technicians than were available. This need led to the establishment of the National Army Training Detachments and contracts, which covered costs of instruction and maintenance, were made with 157 technical schools and engineering departments of universities. Between April 6 and November 11, 1918, these units produced 100,000 trained men and had 30,000 more ready for delivery. Both from a military and an educational standpoint the National Army Training Detachments made a successful record.

The record of the Students' Army Training Corps, the other large undertaking which the committee managed, was much less satisfactory, though the partial failure of the experiment appears to have been due to factors for which neither the committee nor the cooperating college could properly be blamed. The plan contemplated a prolonged period of academic education for each student soldier. With the accelerated programs then in force, the majority of students would have graduated before being called to active duty. Members of the corps were to be under academic, not military, control. Military training was to constitute only a little larger proportion of the student's course of study than required by the R. O. T. C. The minimum draft age then was 21. Units, established at the colleges and universities, were to enlist students between the ages of 18 and 21. They were to be soldiers in the Army subject to active service at the call of the President, placed on furlough status without pay. But while the installation of units was being arranged, the minimum draft age was lowered and all voluntary enlistments were suspended.

The final plan of the S.A.T.C. bore hardly any resemblance to the original. Units were established in 525 collegiate institutions and all physically fit male students over 18 were voluntarily inducted into the Army as soldiers on active duty with private's pay. Nine months was the longest period a student could expect to remain in college. Members of the corps lived in barracks, ate at a common mess, and engaged in prescribed academic and military training under military discipline and control. The colleges and universities were in effect Army camps. As an educational undertaking the S.A.T.C. was not a success. Whether it could have served its military purpose satisfactorily cannot be stated with certainty. During its brief existence it suffered from the lack of commanders and instructors, who were engaged elsewhere in active military operations. The influenza epidemic disrupted the program for several weeks that fall.

Undoubtedly operation of the corps would have improved if the war had continued. But no improvements in details of administration

could have made it an effective agency for preparing the higher types of specialist needed by the Army and civilian services. As an enterprise in higher and professional education it was doomed before it started, doomed by the decision to call practically all members of the corps to active services at the same time the men of like ages were called. This decision meant that, with few exceptions, no more professional or technical specialists could be trained as long as the war lasted. It was fortunate for the United States—for the Army as well as for the nation at large—that the unexpected collapse of Germany saved it from the consequences of this short-sighted and suicidal policy.

Within the next few months—one would hope the next few weeks—some decision will have to be made by the government as to how the colleges and universities are to be used in this war. It will have to decide whether it will avail itself fully of their resources for production of a continuing and adequate supply of specialists and for the basic training of officers; or risk such a depletion of national technical and professional skill as was narrowly averted by the interposition of destiny 24 years ago. The decision is a fateful one for America, and it is overdue.

We know through experience what the government's policy should be. Able-bodied males between the ages of 18 and 21 who have the mental qualifications for higher education should be encouraged to enlist in the Army or Navy, placed on active duty status, paid private's or seaman's pay, and assigned to colleges and universities in numbers to meet both the demands of the services for officer material and for specialists as well as essential nonmilitary enterprises. While not educationally desirable, courses of study should be stripped to bare essentials if the military situation makes it necessary. Teachers of military age should be commissioned and assigned to institutions in sufficient numbers to provide the necessary amount and quality of instruction. Military training should be included in the program. A joint agency representing the War and Navy Departments and the Manpower Commission—or at least an authoritative single agency in each department with active liaison between them—should be set up to conduct the relations of the government with educational institutions now.

[*Samuel P. Capen is Chancellor of the University of Buffalo, and was a member of the War Department's Committee on Education and Training, 1917-18. Reported from the* Educational Record, *XXIII (October, 1942), 629-41.*]

HELPING PUPILS ADJUST TO WAR

LEE J. CRONBACH

In Social Education

FOR years we had taught that war was horrible, that it destroyed all values worth cherishing, that life during wartime brought intolerable hardships. When we entered the war these attitudes persisted and brought worries and fears to many high-school and college students. This paper attempts to point out the areas where pupils are in need of help. It is based on data secured from the responses of 2000 pupils in the state of Washington who were tested in the first three months of 1942. The test consisted of 70 statements, such as "There will be a depression after the war." All were taken from opinions actually expressed by pupils. The pupils responded by making a statement on a five-point scale: certainly yes, probably yes, equally likely to happen or not happen, probably no, certainly no.

Pupils are more pessimistic than the facts warrant. From the responses of informed social scientists, journalists, and public officials it was concluded that a score of between 100 and 130 (on the arbitrary 196-point scale used) represented a reasonably accurate j u d g m e n t. Among the pupils tested, 6 percent of the boys and 3 percent of the girls had scores over 130, while 36 percent of the boys and 53 percent of the girls had scores under 100. It is noticeable that girls are more pessimistic than boys. Two pupil comments show this panicky attitude at an extreme level:

"If I live through it conditions will be so bad that I might as well be dead. There will be a shortage of everything and prices will go sky high. There won't be any jobs for the soldiers coming home and all there will be is just one big depression" *(Senior boy)*.

"After the war the world will be so sick that people won't want to even try to get ahead because when they are getting someplace something or somebody will change their plans for them. It makes you wonder if you want to get ahead or even start because the war or depression will take it away from you." (*Senior girl*).

The world is not that hopeless, and teachers should discuss the prospects for a better postwar world with their pupils, so that efforts to win the war will be surrounded by hope rather than dread.

Pupils have great confidence in the war effort. They believe so overwhelmingly in an American victory that one wonders if they recognize how strong our enemies are. They disagree s t r o n g l y with three statements: we will have a wartime dictatorship; there will be a revolution after the war; the war will last 20 years. In building loyalty and confidence, schools have done well.

Pupils seriously exaggerate the destructive force of war. They reveal a completely unreasonable outlook on the danger of death. Half of them think it likely that half of the American soldiers or more will be killed or permanently injured. Although London's deaths totalled only one-tenth of 1 percent during the blitz, a third of the pupils consider it certain or probable that "If an American community is bombed several times, one-fourth of the population will be killed." These judgments are out of focus because our prewar teachings were out of focus, stressing as they did the horrors of war.

This misconception is dangerous because it leads to fatalism and makes study for a career and stable life seem futile. The danger of this viewpoint is made especially clear by the responses to the statements: "I shall be killed during the war." Many of these boys will face danger, but it is doubtful if 62 percent of them have at least a fifty-fifty chance of death. Even more fantastic is the response of the girls, 47 percent of whom believe they are as likely to be killed as not.

Pupils are confused regarding economic probems. Unlikely shortages are anticipated by some. The majority have confidence that the war will virtually eliminate unemployment (which is questionable) and any fears of a food shortage which were once present have vanished. But 22 percent agree that "there will be an inflation which will destroy the value of savings," 32 percent that "the cost of the war will prevent the return of prosperity during this generation," and 30 percent that "all business not required to keep the population and the army supplied will be closed."

Personal security and freedom are threatened by the war. Twenty percent think that "people will no longer have good times during the war," and 36 percent that "there will be epidemics of disease among civilians."

Pupils expect to serve in the war effort. Far more indicate their expectations of war tasks than the demand can actually absorb. This is a source of valuable energy for the war effort if a place can be found to employ it. To glamorize only a few types of war work, so that boys and girls feel that they are not contributing when they become accountants and stenographers, is to make efficent use of their talent impossible. In its guidance program, the school must recognize the urge to do work of recognized importance in the war, and must see that all socially useful activities get that recognition. Definite projects, such as scrap collection and part-time and vacation employment, which use these adolescents, are of tremendous psychological value.

A simple technique for studying this problem in any school is to ask pupils to write brief essays on "How will the war affect my life," or some similar topic. The violent emotions

that are released will shock the teacher who has not already discovered how deeply pupils are concerned over the war as a threat to their happiness. The State College of Washington's "Test on the Effects of War" may be used to identify morale problems. Scores on the test will indicate which pupils are panicky and which over-optimistic; at the same time, a study of the responses will show which war problems are poorly understood.

The problem of interpreting the war to pupils should be faced by all teachers. The group who can do most to build confidence and loyalty are the social studies teachers. Discussion has a highly therapeutic value, especially when such highly emotionalized topics as fear of death are brought into the open for calm consideration.

It is not enough to confine our teaching to the causes of the war and the broad sweep of events. The war must be understood in relation to the community, the family, and to the pupil himself. When the pupil realizes that the government is protecting him from runaway inflation, that scientific progress is diminishing the deaths from battle injuries, that his fears are far beyond the realities, he can plan for his future calmly. Development of that confidence can be a major contribution of the social studies.

[*Lee J. Cronbach is Professor of Psychology at the State College of Washington. Reported from* Social Education, *VI (November, 1942), 301-3.*]

IN December of last year, the government could find only one American with a thorough knowledge of the Thai or Siamese language. Today it is being taught at the University of Michigan. In December not one American scholar was able to give a course in Malay. Today Yale offers a course in that language. The University of Indiana is giving a course in Turkish, the University of Pennsylvania one in Moroccan. Harvard offers new courses in Finnish, Hungarian, and Japanese, while Johns Hopkins offers Icelandic and Modern Greek. The Hartford Seminary Foundation offers a course in Arabic. Columbia offers Persian, along with Dutch, while still other colleges and universities are adding languages as diverse as Korean, Punjabi, and Bulgarian.

THE FUTURE OF AMERICAN EDUCATION. II*

CHARLES H. JUDD

In the School Review

IF this nation is to deal intelligently with its international problems there will have to be instruction that will develop international mindedness. If technology is to be directed into constructive channels, there must be an understanding of natural forces and of the part they should play in contributing to human welfare. If there is to be understanding of the way in which economic movements should trend in order to produce general prosperity and security, then knowledge of a kind which has not been common in the past must be widely disseminated. If government is to be something more than a policing and taxing agency, people must be taught how to cooperate in the conduct of those joint forms of activity which will at once leave to the individual his personal freedom and bring to him the advantages of social associations.

One crucially important problem of instruction that the future will have to solve is that of vocational education. The amount of such education in the schools has greatly increased. But the vocational education of the future must be truly educative. The traditional academic courses have been criticized because they have been, and often still are, so abstract and so barren of contact with reality that they utterly fail to stimulate young minds. But a great deal of the vocational training being given today is of a very narrow type. Even before the war, pupils were turned into specialists of very limited range, and workers are now being hurriedly trained to perform single operations which can be very quickly mastered. Most of our technical courses are open to the criticism that education, properly conceived, should broaden one's ability, not merely intensify it in a single line. Trade training as it has been conducted has not achieved the educational results that productive work should cultivate. Labor can be made educative if its aims are truly productive. It is particularly irrational and indefensible for the schools to devote the time and energy of pupils, to the extent that has been common, to preparation for employment in such dreary lines as sheer clerical routine.

Vocational education can and should be made a wholesome part of the schooling of every youth. This is a technological age. The problems of society will be solved only when there is a general and sympathetic understanding of industry and agriculture. Furthermore, vocational

*EDITOR'S NOTE: The first section of this article appeared in the November issue of the EDUCATION DIGEST, pages 41-44.

education furnishes the best possible means of teaching the essential facts about human evolution.

A second kind of instruction which the public school has offered too meagerly or not at all is personal hygiene. The extent to which the school has failed in this field is attested by the statistics of the patent medicine industry, the popularity of food fads, and the ease with which every variety of charlatan finds it possible to secure attention. Until Americans learn to manage their bodily lives, maintain their physical vigor, and use their energies with the highest degree of conservation, they have no right to think of themselves as educated.

Enough was said in the first of these two articles to justify the prediction that the instructional program of the future will include much more study of geography and other nations than it has in the past. The outlook for vocational and health education has just been mentioned. The most important revision of the curriculum still remains. So long as the school provided such education as was necessary for success in a comparatively simple society, it was possible to leave instruction in politics and the industrial and commercial relationships of individuals to the family and the community. American schools of a generation ago gave little or no instruction with regard to social institutions. Today, no individual can adjust himself intelligently to society without a great deal of knowledge about the way in which human beings are affected by their relations with their fellows, near and remote. It has been pointed out again and again that the natural sciences have given us a measureable control over the physical forces of the universe and that the urgent unsolved problems of our time are those of controlling social forces.

What is here advocated is the introduction into the curriculum of the study of human evolution. This differs from history, which is a chronological account of the backward and forward movement of tribes and states. Evolution is not a series of temporal changes. It is a succession of achievements in the course of which complex institutions have been substituted for simple ones. History is a descriptive narrative. The study of evolution is an account of focal points where advances have resulted from the exercise of man's powers of discovery and organization.

Recorded history is too scanty to make possible a convincing study of what is highest in human life. As now commonly taught it is a confusing account of wars and short periods of prosperity. Greek "history" usually tells only half the story of Greek life. While the philosophers of Greece were holding symposiums on lofty moral themes, while her artists and poets were producing immortal monuments, her daily life was cramped and her

political institutions warped. The germs of disintegration were present in Greece in the days of her greatest glory. Greece could not survive because she had not evolved the structural characteristics that are necessary for civilized stability. Her philosophers discussed justice—while the Greek economy rested on slavery. Technology lagged far behind art. The largest flour mill in Athens had a capacity of less than two barrels a day. Public sanitation was in its infancy.

While there is much to be gained by following as best we can the chronological account of civilizations that have risen and fallen, what is being advocated is the introduction into the curriculum of penetrating analysis of the stages of human evolution which are now available for study, in the hope that all citizens will acquire the methods of evaluating the good and the bad in present-day institutions. Anthropology leads into sociology, economics, and social psychology, all of which have, until recently, been thought of as the exclusive property of the scholar. We now begin to realize that the only way to raise society to a high level is to make certain that the people share in the results of profound scholarship.

The social sciences are in their infancy. They will never reach full maturity until they share their findings with the whole population of intelligent thinkers and receive the support which comes from popular appreciation and confidence. And for the sake of the improvement of the social organization it is imperative that a wide range of popular understanding be cultivated for the results of the scientific study of human relations.

The history of education shows clearly that advanced schools have always been organized and long conducted for the privileged members of society. As the populace gradually made its way into the upper schools, the traditional subjects have shown a tendency to monopolize the time of all learners. Foreign languages and higher mathematics are perfectly proper subjects of special education for restricted groups; they have no right to monopolize the program of instruction in a secondary school which has become part of the common-school system.

The traditional subjects were first dislodged, in a measure, when the natural sciences were recognized as essential to a modern educational program. Now the natural sciences will have to give up some of their abstract sections to make place for the social sciences. The day of exclusively specialized education is past. In the future, the secondary school will be given over more generally than it has in the past to enlarging the experience of the common people. Specialized education will be pushed aside or upward and will be prevented from interfering, as it often has, with the training of all

citizens for those functions which all must perform in a democracy.

As to the cost of the new education, one can be optimistic. The American people are learning that no cost is too high for the maintenance of civilization. A new scale of values promises to arise from the war. We may rest assured that a policy of penuriousness about education will never be accepted by a people who, in the course of their evolution, have gained an understanding of the contributions that broad knowledge makes to their way of life.

[*Charles H. Judd is Professor Emeritus of Education and formerly chairman of the Department of Education at the University of Chicago. Reported from the* School Review, *L (November, 1942), 621-28.*]

ALONG with many other teachers, I was first introduced to the idea of using films for musical education at a demonstration of sound films put on at the Toronto Conservatory of Music during the summer of 1941. We were all very much interested in the demonstration. There were films showing sound waves, which would link the study of music to that of physics; films showing the acoustics of sound, for the same purpose; and perhaps most interesting of all, films which demonstrated better than any method I have yet seen the use of instruments in a symphony orchestra.

There is a complete film on each of the four choirs of a symphony orchestra, in which every instrument of the choir is clearly shown and played as a solo instrument. It is then used as a part of the general ensemble, and the listener can hear the group as a whole. The instruments are played by skilled musicians, and the conductor is one whose name is well known in musical circles. The music used for demonstrating purposes seemed to be, as a whole, of a very high calibre, and, moreover, quite likely to be known to a high-school student. The sound track on these films reproduces the tone quite faithfully. —Madeline M. Mihalko in *The School.*

PRE-INDUCTION TRAINING IN THE SCHOOLS

LAWRENCE W. PRAKKEN
In School Shop

OF every 100 men inducted into the Army, 63 are assigned to duties requiring highly specialized training and the others make better soldiers if they are trained in some special skill. A total of approximately three and a half million more men will be called to the colors soon. If 63 percent of them require highly specialized training, it means that 2,205,000 men will go through the program in the next few months. The Army has called on the schools for help in this tremendous undertaking.

A Pre-induction Training Section in the Civilian Personnel Division of the Army has been set up with Merwin M. Peake as chief. Working in collaboration with the U. S. Office of Education, this office has studied extensively the various Army technical and field manuals used for the training of personnel. This study disclosed that there are over 600 Army occupations of a special or technical nature the fundamentals of which could be given in seven different courses: (1) fundamentals of electricity; (2) fundamentals of machines; (3) fundamentals of shopwork; (4) fundamentals of radio; (5) fundamentals of automotive mechanics; (6) code practice and touch typing; and (7) radio maintenance and repair.

The Army not only wants every high-school student to take one of these courses before leaving school, but it also wants the schools in evening and part-time classes to give every prospective out-of-school inductee an opportunity to go to class so that he will have a head start when he is inducted.

Course outlines have been prepared for each of the seven courses listed above, copies of which may be secured from the U. S. Office of Education, Washington, D. C. A brief note on each course will be given here.

Fundamentals of electricity is a foundation course which the Army considers as a prerequisite to work in radio, aviation, mechanics, and allied specialties. The course consists of 13 units, providing material for one semester of work. It is not manipulative in character but is designed to give background.

Fundamentals of machines is a physics course adapted for Army training purposes largely from the areas of mechanics and heat. It is a one-semester course which will be offered largely by science teachers.

Fundamentals of shopwork will be the big responsibility of teachers of industrial arts and vocational education. It is designed to give much needed training in the use of hand and machine tools. *It is basic to more Army occupations than any other single pre-induction course.* The course is based on 90 periods of

instruction or one semester, but the Army recommends that students be given at least two semesters of shopwork.

Fundamentals of radio is a two-semester course of a beginning specialization nature. It is based on 18 topics and includes laboratory exercises and demonstrations. Many shop teachers will be asked to conduct this course.

Fundamentals of automotive mechanics is a two-semester course intended to give an insight into the fundamental concepts involved in an understanding of the operation, maintenance, and repair of a motor vehicle. It is based on nine fundamental topics with some time devoted to laboratory exercises. A shop teacher should have no difficulty in teaching this course. Other teachers with a science background and some knowledge of automotive mechanics should also be able to teach the course.

Radio maintenance and repair is a course designed to furnish a considerable degree of operational skill. It can be offered by technical and vocational high schools as well as by many general high schools with the equipment and teaching personnel.

Code practice and touch typing is a course at the operational level designed to teach Morse code. A kit including phonograph records and instructional devices has been made up so that inexperienced teachers can give the course.

The Army asks that every junior and senior in high school have at least one period a day devoted to what could be considered pre-induction training. Students already enrolled in technical courses need not change their programs, of course.

The preflight training program is essentially a part of pre-induction training although organized ahead of the courses listed above and carried on under the auspices of a separate agency of the government. Most schools are not asking that students in preflight also take the other pre-induction courses unless they wish to.

Victory Certificates will be awarded students who successfully complete a pre-induction course. It will accompany them to the Army Reception Centers where it will be used as evidence in making assignments. The High-School Victory Corps program involves as one of its objectives the inclusion of all students in pre-induction training. The manual describing this program can be secured from the Superintendent of Documents, Washington, D. C., for 15 cents.

[*Lawrence W. Prakken is Editor of School Shop and also of the* EDUCATION DIGEST. *Reported from* School Shop, *II (November, 1942), 3-4.*]

STOP THE JUNIOR CRIME WAVE

L. J. Hauser

In the School Executive

IT is unfortunate that it has taken a war to focus attention on the critical problem of juvenile crime and delinquency, which has grown to serious proportions. England, for example, has experienced an increase of 50 percent in delinquency since the war began. Canada, our nearest neighbor, reports a delinquency rate 45 percent greater in 1941 than in 1940. A similar trend is already apparent in our own country. Such conditions present a real challenge to the schools.

In meeting the problem of crime and delinquency, attention must be given to the need for both immediate action and long-term planning. In many communities the school day should be lengthened and summer recreation programs provided. Youngsters should not be thrown into industry without being given careful consideration as to their individual needs. The school's guidance program should function effectively in this field. There is also an urgent need for some form of national planning which will prevent the gradual elimination of all the healthy, vigorous, well-balanced men teachers from the schools, for the educational contributions which they can make are essential to a well-rounded program of delinquency prevention. Nursery schools should be established to meet the needs of those preschool children whose parents are away from home during the day.

School failures.—Many adjustments must be made within the schools themselves to carry out long-range plans. For example, many schools still emphasize the mastery of certain subject matter, with little attention given to the effect of the program on the personality development of the individual student. Progress depends on the achievement of certain minimum subject-matter standards, a type of program to which many students are unsuited and as a result fail. The effect of such failure on the student is to make him dislike school and everything associated with it.

Retardation.—Continued failure often produces very badly retarded children. They feel embarrassed and acquire anti-social attitudes to compensate for their feelings of inferiority and frustration. They become truant and eventually drop out of school, at the time when they are in need of intelligent, sympathetic understanding and guidance. The school is definitely contributing to juvenile delinquency by forcing such students to drop out of school.

Individual growth.—Emphasis on competition should be replaced by a spirit of cooperation. The student's work should be measured, not in terms of how it compares with the achievements of others but rather

in terms of his own individual growth. Provision should be made for each student to find some area of activity in which he can excel. Interests he possesses in other fields, such as mechanics, music, photography, etc., may be utilized by the wise teacher to kindle his interest in school subjects. Supplying the opportunity for the development of such interests is one of the means within the power of the schools to help to prevent delinquency.

Physical handicaps.—Too often the school thinks of physical handicaps merely in relation to academic achievement. Little attention is given to physical conditions as they may be related to personality difficulties which often play an important part in the child's school and out-of-school life and sometimes definitely engender delinquent behavior. Emotional difficulties arise from the jeering remarks of the other students in regard to some physical handicap or disability.

Yet these cases too may be handled in a way to help the child adjust better. Encouraging him to do things within the scope of his own capacity and to become expert in a few such abilities gives him a feeling of adequacy and belongingness to the group, which has now come to respect his specialized knowledge.

Interscholastic athletics.—In too many cases the whole program in competitive sports is based on the idea of "winning" rather than the wholesome development of the physical and recreational welfare of the whole student body. Giving intensive training to a small group of individuals with the purpose of "winning" forces the great mass of students to find their own way elsewhere. Extensive intramural programs furnish the solution to this problem by providing all students with the opportunity to engage in sports.

Use of school facilities.—The school facilities, which represent a large investment, should serve the students not only during the regular school hours but in the free time after the four-o'clock bell and on Saturdays and holidays. The anti-social activities of the "gang" may be off-set by making the school house a community center to be utilized from 12 to 15 hours a day.

Minority groups.—Inferiority feelings that are often developed in minority groups of race and culture provide an opportunity for education to demonstrate how racial and cultural differences can be made into an asset instead of a liability for more wholesome living. Emphasizing the great cultural contributions made by the countries from which their parents came gives these children pride in their heritage. Surrounding the child with a friendly atmosphere, the result of trying to understand him, will aid him in adjusting to a new environment.

Sex education.—A definite increase in social diseases among girls

of high-school age was reported by Ellsworth B. Buck, Vice-President of the New York City Board of Education, after a national survey in 1939. There is an urgent need for a comprehensive attack on the problem of venereal disease and illegitimacy. Few schools have faced this issue clearly. The old idea that sex education is taboo in the school must give way to an intelligent approach.

Teachers.—Teachers and administrators must learn to understand the maladjusted child and what can be done to prevent him from becoming a delinquent. They also need to know what constitutes normal child behavior. To this end they should take courses in guidance, mental hygiene, educational sociology, and child psychology.

The mental health of the teacher herself is the vital factor in securing an "emotional climate" of the classroom in which the child may grow in security, happiness, and stability. How is it possible for a maladjusted teacher to help a child to develop a wholesome personality?

Cooperation with other agencies.—Providing an improved educational program and better trained teachers are ways in which the schools may help prevent juvenile delinquency, but the problem is too complex, too difficult, and too extensive to be handled alone. The schools must be constantly conscious of the fact that the child is being educated outside of school as well as within. His home, his family, his playmates, his church, are all of vital importance. Only as the school understands the child's total environment can it understand the child. The cooperation of all social agencies that can contribute to the prevention of juvenile delinquency should be solicited, so that the best possible coordination of all such agencies can be provided. Since the school is the one agency that is closest to all the children, it has the responsibility for exerting leadership in this field.

[*L. J. Hauser is Superintendent of the Riverside, Illinois, Public Schools. Reported from the* School Executive, *LXII (November, 1942), 15-17, 71.*]

STUDENTS at the University of Michigan have improved their physical fitness by at least 20 percent with the completion of one term of the institution's compulsory "hardening" course. Major gains were made in events demanding "physical condition" (pull-ups, push-ups, and 440-yard run). Minor changes were shown in events depending on "nonendurance and explosive power" (jumps, 60-yard dash, grip strength).

CONTROVERSIAL ISSUES IN THE TEACHING OF READING

E. W. Dolch

In Cooperative Effort in Schools to Promote Reading

In seeking out controversial issues in the teaching of reading, I have taken the point of view of the teacher and the school administrator. They cannot postpone decisions until controversies are settled but must do something about the teaching of reading "right now," even though they may not be very sure what is the right thing to do. The problem to be discussed here is, therefore: What are the questions about which the teacher and administrator feel uncertain, about which they feel there are two sides?

The first controversial issue is one that is basic to much of our school practice during the first three years. Is reading, or is child development, the chief concern of the primary grades? For some decades it was freely said that the chief purpose of the primary grades was to develop skill in reading so that the child could, as promptly as possible, use reading skill in attacking many school subjects. Today objectors say that the happy, balanced development of the child is the chief concern of the school, especially of the beginning years and that child life has been warped, hampered, and restricted by too much emphasis on reading. They point out, among other evils, that personality maladjustments have been started by teachers who were blind to child development while bending every effort to force children to learn to read. Believers in the paramount value of interest in all learning have said that the child comes to school with eager interests and that we at once start to kill them off or dry them up by our emphasis on reading which, they say, is an activity foreign to real child interests at this stage. Primary grade teachers, urged to "push reading," at the same time feel the vital nature of child life and want to contribute as much as possible to its happy, wide development. Here it must be said that activities and reading go together very well with children who are superior in quality, in background, in quickness in learning, and maturity. But we must also think of the average and, above all, of the slow, the faltering, and the deprived. How can we secure for them both reading skills and development that will lead to a satisfactory membership in adult society? I do not know of any research which can aid us to decide our course. The issue is one of philosophy. If the good life for children of primary grades means quickly to become a reader, that is one thing. If it means to live widely and eagerly in a world that has only a minor place for books at this period, that is another thing. If a child can com-

bine the two, then very well. If he can hardly do both, which shall we choose?

A second controversial issue, related to the first, is: When should we begin regular or systematic instruction in reading? In this case research being carried on in Winnetka, Illinois, may have raised another issue rather than have settled one. There, a group of children were allowed to continue their activity program without systematic instruction in reading until the middle of Grade II. Each child was paired, in the usual scientific manner, with others who began systematic instruction in Grade I. Careful records were kept for seven years and the results have been published. In brief, these results show that children who started systematic reading a year late caught up with the others in two years, then steadily passed them, and at the end of Grade VII were a year ahead of them in reading ability. With such acceleration in reading, how much greater success these children can be expected to have in junior and senior high school! Here we have a careful study which seems to say that it is profitable to start later. Obviously, more research is needed. May I suggest that it deal with the question of what we mean by "systematic" instruction in reading. Maybe our usual type of instruction is really a second-grade type and therefore had better be given in Grade II. Is there not, then, a first-grade type of instruction which is still systematic and which will give even better results than delaying the usual instruction until Grade II? Here is a research situation which is delicate but that surely must be attacked if we are to settle this controversial issue.

A third controversial issue, related to both of the preceding, is: Should we promote, especially in the primary grades, on the basis of reading achievement or on the basis of maturity, chiefly chronological age? Whatever may be your philosophy about the chief function of the primary grades or your practice about beginning reading, you come at the end of each year to the issue "to promote or not to promote?" and must face the consequences of either decision. To promote all brings a wide spread of reading ability to each grade and to retain nonreaders means dissatisfaction of parents, if not of children, and the undesirable situation of having in a room older and bigger children who do not fit in. Research shows that while there are teachers who can handle the wide range of ability accompanying promotion on the basis of maturity there are many who cannot and who, therefore, simply neglect the extremes. Research also seems to show that the method of organization called the "primary school" is a successful solution of promotion for the first three years. For three years the child moves from group to group

but not from grade to grade. He progresses as fast as he can and is placed where he can progress best. When he succeeds in reading, he graduates from the primary school and goes on to Grade IV. We need full reports on individual progress in order to have a better knowledge of the inner working of the plan.

The fourth controversial issue—the teaching of phonics—is not the same as that of a few years ago for now it is known that children must learn the sounds which letters represent. Now, the dispute concerns the what, when, and how of sounding. Research in the field of phonics has been held back by the difficulty of measuring results. Here is an opening for the ingenuity of any teacher or administrator. How well do your pupils use phonics? What phonic elements do they use? Devise satisfactory means of finding out, and you will have made a major contribution to the teaching of reading.

The fifth controversial issue—concerning amount of reading—needs research for its solution. We have plenty of studies showing that children who read a great deal improve in reading ability, but skeptics still point to children who have improved when abundant reading was not provided. Of course these children went out and got their extensive reading for themselves, but we do not have clear statistical evidence of this fact. We need a study showing the total reading done by a great many children during a year and their improvement in reading. Children would have to be paired on all factors except the one variable, quantity of reading. Such a study would probably show that children do *not* improve in reading without practice in reading.

A sixth controversial issue is the rather old one of improving eye movements. In the field of accelerating eye movements I should prefer to say that we have "reports" rather than research. It is true that children have been pushed and that people have pushed themselves, and that they have reported reading a larger number of words per minute. But reading implies more than that. Every way reading can be defined makes it essentially a thought process, an operation of the mind. What happens to the thought process when we push reading, either with a machine or with the reader's attention? Here is the real controversial issue, and one on which we have no adequate research. Favorable reports give merely subjective evidence or small samplings of immediate recall. In opposition to it, we have the general principle that speed and comprehension are inversely related. All of us know that, when we want to comprehend more, we read more slowly and that, when we read fast, we expect to get less from the reading. Here by "comprehension" we do not mean immediate recall. We mean seeing thought relationships, drawing inferences, associating the

new with the old. Until we have better evidence, most of us will rely on much easy, interesting reading, rather than pushing methods, to speed up reading without hampering the various mental processes that true reading involves.

The seventh issue should perhaps be called a controversial *area,* dealing with the teaching of study skills, with which high schools and upper grades are particularly concerned. (1) When should we begin teaching study skills? (2) Which study skills should we teach? (3) Should we teach them in a reading period or in the content periods? Research is plentiful on study but it fails to answer these questions.

The claim is made, regarding the first, that we should not teach slow careful reading until we have well established the rapid, smooth eye movements of recreational reading. Can we not teach opposite habits of reading in alternate periods? We need the answer before we can intelligently plan when to begin teaching study skills.

Concerning the second, how many study skills are there? What study skills do children actually use when they study their lessons? We simply do not know. Why not take the children into our confidence and try to have them find out and tell us how they study? At any rate, before we go to great lengths to teach study skills, there should be some evidence other than our own opinion as to what those study skills should be.

The third question of whether study skills should be taught in a reading or English class or in the subject-matter classes is not entirely in the realm of opinion and conjecture. The issue is being settled now in particular schools by a rule-of-thumb method which has much to commend it. Wherever a teacher is found who is enthusiastic about teaching study skills—in any class there study skills are taught and no doubt are more or less learned. Wherever a teacher is found who is not enthusiastic, perhaps we had better not try to teach the skills anyway. This is just a recognition of the value of special knowledge and enthusiasm on the part of the teacher. But teachers would have more knowledge about the problem and would be more enthusiastic about it if research could give us some facts in this controversial field.

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PRE-FLIGHT AERONAUTICS IN THE SECONDARY SCHOOLS

FRANCIS D. CURTIS
In the University of Michigan School of Education Bulletin

WHEN during the progress of the war the country's need for an enormous number of aviators became paramount, it was logical that the secondary schools should be expected to offer some sort of primary training in aeronautics. The demand was immediate. It was at once apparent that the time necessary for formulating an optimal program for such training would not be available; it was obvious that the program had to be ready to be put into effect generally by the fall of 1942. Consequently, committees selected on the basis of leadership and competence attacked the problem of launching the venture. "Air-conditioning" materials suitable to the secondary schools were assembled and organized. Outlines and textbooks in considerable numbers appeared. Ambitious plans were devised for integrating "air-conditioning" materials with the content of nearly every conventional high-school subject. Of greatest importance, however, was the formulation of the course in "pre-flight aeronautics."

Pre-flight aeronautics contains part of the content of the conventional high-school courses in physics and mathematics and, in addition, much other technical, scientific, and mathematical material. As a result the course is probably at least as difficult as any other in the entire high-school program of studies.

Content as difficult as this must of necessity be offered as late in the high-school program as may be practicable. Other problems relating to pre-flight aeronautics, however, are less readily solved. Moreover, in weighing the probable success of the attempts of secondary schools to teach this course effectively, one is confronted with some unpleasant considerations:

1. *There are not enough teachers qualified to teach pre-flight aeronautics.* This fact became obvious early in the work of formulating the course content. Consequently workshops and special subject-matter courses were offered in various institutions of higher learning last summer. But several influences, prominent among which were a nebulousness of opinion with respect to what the new content should or would be, and an unwillingness or an inability on the part of the many teachers to rearrange their summer plans so that they might secure the needed training, nullified to a large extent this emergency teacher-training program.

2. *There is confusion with respect to the types of pupils who should be recruited for the course.* One would not question the author-

itative statement that there are jobs in the war aeronautics program that can be filled adequately by men and women of I.Q. 80. But one must reject the implied corollary that all pupils with I.Q.'s of 80 or more should be encouraged to enroll in pre-flight aeronautics. The content of this course as presented in outlines and textbooks offers a sturdy challenge to the most capable pupils in the secondary schools. Therefore, to follow the practice advocated by at least one influential leader in the pre-flight-training movement, of recruiting for this course all pupils who can be influenced to elect it, would result in the failure of most of these pupils, if standards were maintained. It would seem, then, that the success of this program of training rests primarily on selecting the right pupils to receive it.

In the large secondary schools the problem of offering the course is not especially serious. Such schools have, along with other requirements, a sufficient number of pupils to provide the necessary selection. Moreover, they can add the course to their extensive programs of studies without dislocating them. Yet, even in the larger high schools in this state, the common practice is to teach pre-flight aeronautics to only one section of highly selected pupils.

In the small schools, providing the course in pre-flight aeronautics is discouragingly difficult. With their small student bodies and limited faculties, such schools cannot add the course to their already full programs of studies. Also, they cannot easily substitute it for another course which the community has come to expect and demand. Furthermore, they cannot make the courses in physics or mathematics which they ordinarily offer an acceptable substitute for pre-flight aeronautics by merely "stiffening" them. For these and probably other reasons the prospect that the small secondary school can, within its own unsupplemented resources, contribute effectively to the technical part of the "air-conditioning" program is most unpromising. Yet, in every small school there are some boys and girls who are capable of learning the desired subject-matter and whose abilities should be made available in this national emergency. And there can be little doubt that the need for aviators is sufficiently acute that every boy and girl who can assimilate this pre-flight training should receive it.

In the light of these difficulties, what can be done to promote pre-flight aeronautics in the secondary schools?

1. Let us organize sections in pre-flight aeronautics by combining recruits from several or many small high schools. Let us urge the immediate formulation and inauguration of plans for transporting from the small high schools to designated centers the limited numbers of pu-

pils who are capable of achieving the desired goals of the course. In spite of the limitations on travel imposed by the war, the need for pre-flight training of future aviators is so urgent that it seems reasonable to expect the state or the national government to provide the transportation necessary to insure the success of the plan here proposed.

2. Let us immediately take steps to improve the competence of those who must teach pre-flight aeronautics. However suitable and effective the available textbooks may prove to be, the teachers must be competent to supplement the texts with additional content and with new materials as these are developed. It seems reasonable to expect the universities and colleges to provide needed inservice training for these teachers. It seems logical to look to them for the establishment of centers throughout the state where for longer or shorter periods, determined by needs, experts from their faculties can provide basic and supplementary training.

3. Let us immediately formulate and carry into effect plans for increasing the numbers of women teachers who are competent to give the pre-aeronautics course. At present the number of women who are teaching this course is relatively small. It seems certain that in the not-too-distant future many men who now are offering the work will be drawn from the schools for one reason or another connected with the war effort. It is prudent, therefore, to canvass *now* the available force of women teachers in order to locate both those who are already competent and those who, with the amount of training which it is practicable to give them, can be made competent to replace the men teachers as need arises.

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IN the last war there were 1,700,000 high-school graduates with A-1 classifications; now there are 7,000,000. Then there were 400,000 college graduates classified A-1; now 1,400,000.—*Journal of the NEA.*

TECHNIQUES OF INSERVICE EDUCATION

C. A. Weber

In the North Central Association Quarterly

HEREWITH are presented techniques employed in secondary schools for educating teachers in service. A committee of the Association sent questionnaires to a sufficiently large number of schools so that the final sample, on the basis of usable questionnaires returned, would be at least 7 percent of the total secondary-school membership and typical with respect to geographical location and size of school. All told, 325 questionnaires were mailed to schools. Out of this number 283 were returned, but only 247 were usable in all areas. Twenty-one schools had nothing to report. Given herewith are the most promising techniques for improving instruction, improving staff relations, and improving community relations as well as the least promising techniques.

Promising Techniques for Improving Instruction

1. Visiting teachers in one's own school according to a plan devised by teachers themselves.
2. Visiting teachers in other schools according to plans devised by the staff.
3. Holding departmental meetings to study curriculum development.
4. Experimenting with new classroom procedures according to plans devised by the staff.
5. Making surveys of pupil problems, interests, and needs.
6. Surveying graduates for facts needed in curriculum development.
7. Holding departmental seminars open to all teachers to discuss departmental problems.
8. Exchanging teachers with other schools.
9. Having pupils and parents, as well as teachers, serve on committees concerned with pupil activities and problems.
10. Electing committees to conduct experiments within the school.
11. Electing committees to evaluate practices, experiments, etc.
12. Having teachers participate in the selection of instructional material.
13. Having teachers of one grade meet to discuss common problems.
14. Having teachers visit homes of pupils.
15. Having teachers devise criteria for the evaluation of teaching.
16. Organizing teachers into committees to carry out a program of cooperative research in summer school.
17. Organizing teachers to study recent educational research bearing on problems of the school.
18. Setting up problems for study which require experimentation.
19. Having teachers arrange exhibits of work done in their classes.
20. Having two or more teachers

cooperatively teach one class, working and planning together.

21. Electing teachers to study tests and testing.

22. Making careful study of maladjusted pupils.

23. Providing an adequate professional library.

24. Having teachers, through committees, develop a guidance bulletin.

25. Surveying the vocational opportunities in the community.

26. Providing time for teachers to interview pupils.

27. Organizing the staff to study the socio-economic background of every pupil.

28. Electing committees to study particular phases of curriculum development.

29. Organizing the entire staff into committees to study curriculum development.

30. Organizing small group study meetings for study of the curriculum.

31. Experimenting with a "core curriculum."

32. Devising (by teachers) an organized program of summer study for the purpose of making a cooperative attack on specific school problems.

33. Organizing a summer workshop to study curriculum development.

34. Including parents and pupils on curriculum committees.

35. Electing committees to study recent theories of learning and to keep staff informed through oral and written reports.

36. Electing committees to keep staff informed regarding current educational research.

37. Electing committees to keep staff informed of current experiments in progress in classroom procedures, curriculum, etc.

Promising Techniques for Improving Staff Relations

1. Having teachers preside at general meetings of the staff.

2. Keeping accurate minutes of general staff meetings.

3. Making minutes of staff meetings available to teachers.

4. Electing committees to plan staff meetings.

5. Holding staff meetings on school time by making provision for them in the program.

6. Serving light refreshments in connection with staff meetings.

7. Extensive use of panel discussions.

8. Having committees make reports on topics selected by the staff.

9. Having open discussion following panel or committee discussions.

10. Selecting staff members to talk to the group on specific topics.

11. Organizing teachers into committees to study specific problems.

12. Having teachers prepare and issue school handbooks for new teachers and new pupils.

13. Providing for sabbatical leave to study, travel, or recover health.

14. Providing cumulative sick leave for teachers.

15. Providing periodic health examinations at school expense.

16. Providing a cooperative medical, hospital, and health service for teachers.

17. Having teachers cooperatively plan recreational and social activities for teachers.

18. Having teachers develop a cooperative program for securing improved living conditions for teachers.

19. Giving teachers a definite part in the selection of new staff members.

20. Having teachers plan and execute procedures for the orientation of new teachers.

21. Electing rather than having the principal appoint committees.

22. Having teachers determine who is to appoint committees.

23. Selecting committees, the selecting being done by teachers, to devise plans of action in connection with policy making.

24. Having teachers select committees to gather facts needed for policy making or devising plans of action.

25. Using committee reports for bases of plans of action of the staff.

26. Holding a series of seminars a week before school opens to study plans for the year.

27. Providing for teacher participation in planning new buildings.

28. Having teachers prepare a standard supply list.

29. Having teachers make a list of their problems for use of the staff in planning faculty meetings.

30. Having teachers choose their own leaders for discussions.

31. Electing a committee of teachers to work with the administrator in planning the school budget.

32. Electing a committee of teachers to work with the administrator and board of education in developing a salary schedule.

33. Having teachers cooperatively develop a statement of their own philosophy.

34. Electing committees to suggest readings for teachers.

35. Electing a principal's advisory committee.

36. Holding joint meetings of boards of education and faculty.

37. Electing committees to assist in planning the class schedule.

38. Holding informal meetings of the staff.

39. Having teachers select topics for special study.

40. Having teachers devise a plan for basing salary increases on evidence of growth.

41. Granting teachers short leaves with pay to attend conventions.

42. Giving salary increments or bonuses for active participation in experimentation within the school.

43. Giving salary increases or bonuses for extensive activity in study of local problems, curriculum revision, guidance, etc.

44. Giving salary increases for publication of magazine articles

growing out of study of problems within the school.

45. Providing a faculty browsing room and lounge.

Promising Techniques for Improving Community Relations

1. Making time and place of general staff meetings known to parents, pupils, and the general public.

2. Inviting parents, pupils, and the general public to attend staff meetings.

3. Issuing press bulletins, mimeographed bulletins, etc., to inform the public of staff meetings.

4. Holding panel discussions in which teachers, pupils, and parents participate.

5. Having pupils, parents, and the public participate in the discussion in faculty meetings.

6. Sending questionnaires to parents, pupils, and teachers to secure ideas for suitable topics for discussion.

7. Holding forums open to parents, teachers, and pupils.

8. Having parents, teachers, and pupils give talks in general faculty meetings.

9. Having pupils, parents, and teachers serve on committees concerned with pupil activities and problems.

10. Having teachers prepare weekly bulletins for parents.

11. Having teachers write daily or weekly press bulletins.

12. Organizing a community coordinating council on which teachers elected by the staff serve.

13. Including pupils, parents, and others on committees to study curriculum development.

14. Having teachers develop a guidance bulletin for use of pupils, teachers, and parents.

15. Having teachers make a survey of community resources for curriculum development.

16. Electing committees of teachers to work with parents, board members, and pupils in evaluation of the school.

17. Including pupils and parents on planning committees in connection with extracurricular activities.

18. Having teachers, pupils, and parents plan assembly programs.

19. Releasing teachers from school duties to take part in programs of local organizations.

Techniques Considered Least Valuable

1. Having the principal preside over teachers' meetings.

2. Having the principal plan faculty meetings.

3. Holding staff meetings without adequate planning.

4. Holding meetings after school when teachers are tired.

5. Discussing routine matters.

6. Holding faculty meetings at irregular intervals.

7. Holding "reading circles."

8. Demonstration teaching.

9. Having principal do most of the talking.

10. Domination by the principal in discussions.

11. Visiting classes by principal or supervisor.

12. Holding individual conferences by invitation of principal.

13. Basing salary increase on summer study without concern for other evidence of growth.

14. Basing salary schedules on earning advanced degrees without other evidence of growth.

15. Basing salary schedules on years of service without regard to other evidence of growth.

16. Giving teachers leaves without pay.

17. Deducting from salaries for short absences due to illness.

18. Appointing committees when electing could be the procedure to employ.

19. Issuing circulars and bulletins to teachers.

20. Creating curriculum committees by appointing only department heads to serve.

21. Issuing bibliographies to teachers.

22. Having the principal review current literature.

23. Having the principal issue orders to teachers when teachers could work out their own procedures.

24. Principal becoming overly concerned with technical rules and regulations regarding teachers.

25. Making faculty meetings resemble college classroom situations.

Cooperative techniques, that is, those techniques which involve active teacher participation in planning and policy making, have the greatest promise. Traditional, inspectorial, authoritarian techniques, which stem largely from administrative initiative, appear to have the least promise.

[*C. A. Weber is research assistant to the Subcommittee on Inservice Education of Teachers of the North Central Association of Colleges and Secondary Schools. Reported from the* North Central Association Quarterly, *XVII (October, 1942), 193-98.*]

FACULTY members at Indiana State Teachers College know what their students think about them. Students rate their professors each year on 10 points: affability, enthusiasm, industry, judgment, earnestness, scholarship, English, teaching procedure, stimulating power, and general worth. The plan is a definite part of the institution's policy to improve the faculty.

PHYSICAL FITNESS IN HIGH SCHOOLS

N. P. Neilson

In the Journal of Health and Physical Education

A MANUAL entitled, "Physical Fitness—In Preparation for the Armed Forces and Wartime Service," has been prepared by a committee appointed by the U.S. Commissioner of Education in collaboration with the Army, Navy, and Public Health Service to be used in high schools. The bulletin is now being printed and will be available soon for distribution by the Bureau of Documents, Washington, D. C.

The manual presents a wartime program of physical education with the emphasis placed on instruction and practice in aquatics, gymnastics, combatives, sports and games, and other v i g o r o u s activities adapted in intensity and duration to the individual needs of pupils. One regular school period daily of instruction in physical education for all pupils is recommended. The instructional period should be supplemented by an elaborate participation program including intramural and interscholastic athletics. It is recommended that all normal pupils participate in competitive athletics, mass athletics, road work, hikes, weekend journeys, and similar events for at least ten hours each week in addition to the physical education period that is included in the school schedule. In its minimum essentials it calls for but two changes in the usual high-school program. The first is an increase in teaching time allotted to instruction in physical education, and the second change is an increase in the intensity of the exercises.

The purpose of the program outlined is to make secondary-school pupils physically fit to carry their responsibilities as members of the armed forces and as efficient and effective workers in the war effort. This includes the development of strength, endurance, stamina, and physical skills that will be of direct value and use in the armed forces and war work, and an attitude and viewpoint that will cause the pupils to support wholeheartedly the war effort.

Large numbers of pupils now enrolled in high schools will enter into active service in the armed forces and war-time industry in the immediate future. In addition to the boys who will be called to some form of service, it has been estimated that by the end of 1943, 6,000,000 women will be employed in war production, many of whom will be drawn from the high-school age group. These young persons must be fit not only from the standpoint of technical skill and morale, but also that of physical condition.

Army and Navy officers have stated that the young men inducted into military service whose physical examinations reveal no serious physical defects, lack development,

strength, and endurance to such a degree that the program of military training is retarded for several months while the recruits are being built up physically.

There are several things that affect, favorably or adversely, the development and maintenance of a desirable level of physical fitness. Participating regularly in a rational program of physical education has been demonstrated to be one of the most important elements that contribute to physical fitness. Other significant factors are physical defects, communicable disease, accidents, nutrition, environment, and personal health habits.

The success of a physical-fitness program in high schools will depend largely on adjustments in the school program that must be made by school administrators. It is necessary that there be provided the minimum essentials of (1) adequate time in the daily schedule, (2) a competent teacher, and (3) a place for conducting the classes.

A careful selection of students is needed before the training starts. It is necessary to differentiate between (1) the healthy students who are able to take the full program, and (2) those who are not quite healthy and, therefore, not able to take the program in its original form. Physical education in the armed forces has a basic safety factor which is absent in many schools. In the Army and Navy the men have been found to be healthy by a thorough medical examination and they have convenient opportunities for medical consultation. In many schools, the pupils have neither one nor the other and hence in such schools vigorous training needs to be supervised closely.

The selection of pupils by teachers for participation in physical education should be based on three things: (1) case history, (2) physical inspection, and (3) careful observation during the first weeks of training. The health history of each pupil dealing with illness and with his physical and mental development furnishes most of the data that the teacher needs for his selection. The physical inspection and observation during training may help to find the status of the pupil so that the training may be adapted to his needs.

Our armed forces are operating under conditions that demand an ability on the part of the individual to handle himself successfully in the water while fully clothed. Hence, high-school pupils should learn to stay afloat for a long period of time, to swim under water, and to swim long distances without exhaustion.

Gymnastic exercises may be used to improve muscle tone and bodily development. Marching and running, road work, cross-country and obstacle running, relays, stunts, conditioning exercises, apparatus activities, tumbling, and combative activities should be included in the

program. The sports and games recommended are: group games, track and field, skating, camping, cycling, basketball, field hockey, football, six-man football, touch football, soccer, speedball, and volleyball.

Physical fitness is as important for girls and women as for boys and men. Girls must be prepared to carry on work which is directly related to the winning of the war, even though not on the fighting front. Many women are now at work in defense industry and farming, serving as nurses, medical social workers, and recreation leaders with the American Red Cross, with the U.S.O., and other organizations. The educational program for girls must be changed to meet these needs.

Women in the American Red Cross and in other branches of the service which may be sent overseas must be completely at home in the sea while fully clothed. They must be able to stay afloat for a long period of time and be ready to give assistance to others when necessary. These needs, therefore, should be emphasized at the present time rather than recreative aspects of swimming. The most valuable strokes in emergency situations are the side, breast, back, and trudgeon strokes.

The great value of gymnastics for girls is that the movements can be used to develop specific parts of the body. The duration and intensity of the dosage can be controlled. The objectives are to develop strength and endurance, skill and agility, and assist in the maintenance of erect carriage. Running, obstacle races, relays, stunts, conditioning exercises, and apparatus activities may serve as development activities.

Acquiring skill in any activity is dependent largely on timing and judging space relationships. As skill improves, harder and longer periods of work can be sustained if a rhythm of work is established. Rhythmics are unique in contributing this particular training to war-time efficiency.

Sports and games provide for strenuous big-muscle activity and contribute to the development of speed and endurance.

Achievement standards taken from the best available sources are presented in the Manual. In the program of training for physical fitness, teachers should stress the daily performance of special activities with ever increasing frequency and duration of participation.

N. P. Neilson is Executive Secretary of the American Association for Health, Physical Education, and Recreation. Reported from the Journal of Health and Physical Education, *XIII (October, 1942), 458-59, 496.*

"BUT YOU CAN LEARN, CAN'T YOU?"

DAVID M. TROUT

In Michigan Teacher Education Topics

TWO or three years ago, a fellow educator and I dropped into the office of a Michigan high-school principal for a short visit. As usual, we asked him if he was doing anything new. His answer was to bring to light a new course syllabus in English and point with pride to the stiffened requirements in grammar. This seemed to him something new and worthy of special praise.

Over in another corner of his large office was a complicated amateur broadcasting outfit which competed too strongly with the English syllabus for our attention. He seemed to us a bit embarrassed as he related how a persistent group of high-school boys had, a few years ago, asked him to teach them a course in radio. He insisted that he had never had even a college course in it and knew nothing about the subject. Then, one of the boys blurted out, "But you can learn, can't you?" That question got him and he agreed to offer the course. Each year now, that high school provides its students with a course in this subject and the principal has learned probably as much as any student in the course.

After he got started teaching the boys the mechanical aspects of radio, 50 girls came to him with a petition that he teach them how to prepare scripts and speak over the radio. Since English was not his field, he refused at first, but their charming persistence finally broke down his academic integrity and he agreed to teach a class of ten—no more. He told us, with enthusiasm, how much he had learned about speech and English in that course.

Then he admitted, this time with evident uncertainty, that when some of the boys passed government tests for amateur operators with high honors, he had allowed them, in a few instances, a half unit toward high-school graduation. He seemed reluctant to tell this, lest we think him loose in giving credit.

But I almost forgot to tell you about that amateur broadcasting set. The boys and their teacher found that to install one they must have a government permit which would be granted only provided a qualified person would sponsor it. Well, they found that the Western Union man at the railroad station could qualify as sponsor, so they now learn all about the mechanics of broadcasting, as well as receiving, and incidentally, come into friendly relations with students in other schools who have similar outfits.

Whatever people may think of the daring which would lead a high-school principal to teach a subject he had never taken in, before, or after college, just because the pupils in his school wanted to learn it, he was doing just what many teachers

must do, especially during this war emergency. Suppose some of those high-school fellows want to learn about tanks, airplanes, how to shoot straight, how to march and drill; suppose some of them want to learn to speak German, Japanese or Chinese; suppose they want the kind of mathematics the Army or the Navy demand of them—can we teach these things if we have never had courses in them at college? The only answer I know is in the words of that high-school boy—"But you can learn, can't you?"

Maybe we, who have had years of experience learning how to learn, can at least keep up with eager boys and girls who, in these war times, want desperately to learn what they need to know when they need to know it.

[*David M. Trout is Coordinator of the Michigan Cooperative Teacher Education Study. Reported from* Michigan Teacher Education Topics, *II (October, 1942), 3.*]

Current Quotations:

JOHN A. SEXSON, Superintendent of Schools, Pasadena, California: "Boards of education, responsible public officials, and citizens in general must exhibit on the home front some of the same courage we expect of our armed forces on the war fronts. We must expend for the essential needs of our democratic ways and institutions with something of the same vision and abandon we exhibit in financing the distant war for we are attacked and we may lose this war as surely at home as abroad. If we confine our efforts and our expenditures to destruction and despoliation, we shall have a 'scorched earth' in fact. Our enemy has already forced a 'scorched earth' policy for our material possessions in some areas, but if it shall develop that these same enemies are formidable enough to force us to a 'scorched-earth' policy with respect to our cherished democratic institutions, we are vulnerable indeed."

MAJOR GENERAL LEWIS B. HERSHEY: "I don't want to hurt education, but the education of our children may have to be confined. We must realize that we may have to see the time when our youngsters will have to do farm work or do something else useful four or five hours a day."

HOW SECONDARY SCHOOLS ARE HELPING TO WIN THE WAR

WILLIAM C. REAVIS

In the Bulletin of the National Association of Secondary-School Principals

GREAT changes in the activities of the secondary schools of the United States have been made since war was declared. Almost as a unit the schools have responded to the challenge to participate as fully as possible in helping the nation win the war. Many new courses designed specifically to meet defense needs and to provide types of training which are in great demand by war agencies have been added to secondary-school offerings. Among these additions are courses supplementary to employment in defense industries as skilled and semi-skilled workers and courses to prepare out-of-school youth and NYA enrolees for admission to intensive defense training. According to a news release of the United States Office of Education, more than 11,000 schools have participated in providing such courses, and more than 1,600,000 students have benefited.

Typical is the program being followed by the Bloom Township High School of Chicago Heights, Illinois, where vocational classes in machine-tool operation, welding, pattern-making, automobile mechanics, drafting, quantity food production, and home nursing lead many students directly into defense jobs. Several courses are reimbursed under the Smith-Hughes law. Financed by the federal government, NYA and the school cooperate to give training to 200 out-of-school youths in machine-tool operation, arc and gas welding, sheetmetal work, hand forging, radio assembly, power sewing, and gas engines. Federal funds also finance night courses for adults, such as a ground school under auspices of the Civil Aeronautics Administration, college-level engineering courses for high-school graduates taught by specialists from industry, supplementary courses for men engaged in defense jobs who desire to "upgrade" themselves, and apprentice training for youths selected by industry for specialized training leading to supervisory responsibilities.

The large-scale participation of teachers and pupils in war activities everywhere has created problems which are projected into the regular classroom work to such an extent that a shift in emphasis has inevitably resulted. In chemistry, for example, there is interest in the nature of chemical warfare and the means of combating it. In physics greater consideration is given to electricity and aeronautics. In industrial arts, pupils construct games for the use of men in the military camps. Health maintenance and diet take the lead in hygiene, as do first aid and home nursing in physi-

ology courses. In social studies world affairs color all discussion.

Whether leaders in secondary education believe in acceleration or not they have been strongly urged by the American Council on Education to speed up the education of pupils of ability so that these promising persons might be graduated from college before they were called by the Selective Service Act. Changes in requirements which permit earlier entrance to college for such pupils have been instituted and, in farm and factory localities, means have been found to allow high ranking seniors, in particular, to leave school early in the spring for farm or factory work.

The active participation in war activities has created new demands on secondary schools for the wider use of school facilities. In Whiting, Indiana, the senior high school operates its machine shops on a 24-hour basis, and the Bulkley High School, Hartford, Connecticut, turns its shops over to adults every evening. Many high-school buildings are being used for night classes for adults in defense classes, for the Red Cross, Women's Ambulance Corps, or the Civil Aeronautics Administration ground school, and even during summer vacation, in some cases, through the day and evening. At Genoa Township High School, Genoa, Illinois, the farm shop is being used by local farmers for repair work.

The school has frequently led the community in movements to safeguard public welfare and in participation in the war program has merely enlarged its protective activities. Reports from widely scattered secondary schools reveal that the pupils and faculty members are prepared to offer services in extinguishing fires, rendering first aid, home nursing, preparing air-raid shelters, giving training in health maintenance and diet, performing life-saving services, working toward conservation of resources, and the like.

The secondary school in most communities reaches more homes in a direct and intimate way than does any other social institution. The youth who attends the school brings to the members of his family the currents of thought and the attitudes of mind of the school head and faculty. If these thoughts and attitudes are wholesome and sound, the influence on the members of the family is stabilizing and uplifting. Thus the school contributes to the maintenance of home morale in wartime. In La Porte, Indiana, the all-school committee on defense has issued a list of suggestions to indicate to teachers in each department of the secondary schools how they may most effectively cooperate with the total war effort. The social studies department, for example, has been asked to stimulate lively discussions of current events, to develop a thorough understanding of the nature of democracy—

its origins, history, achievements, problems, and values—to teach the importance of hemispheric solidarity, to help pupils to see and feel their part in this national emergency, and to make certain that there is a "participating citizenship," and democracy in action in each classroom and in the school system. It has been urged to stress respect and love for national emblems and instill patriotism; to develop a spirit of cooperation, tolerance, and a willingness to sacrifice in the interest of the common good; to continue to teach the basic principles and facts of American history, government, and geography; to show how democracy betters other forms of government. Instructors are asked to teach the dangers to democracy from without and within, the problems of organizing industrial and economic resources for defense, the importance of conservation of our natural resources, the importance of getting reliable information as a protection against idle or malicious propaganda, and to point out what post-war problems are likely to confront us. It is suggested to the teachers that they emphasize in instruction the development of proper attitudes and techniques of learning as well as factual information.

Pupils can and should give cheer and encouragement to their associates and alumni who are fighters in the trenches, on the seas, and in the air. They can make a positive contribution to soldier morale by writing letters to local members of the American forces and by sending the school paper and school souvenirs to alumni members in the war. They can contribute magazines and books, they can—under proper sponsorship—entertain soldiers in local camps, and give appropriate publicity to valorous deeds of alumni.

Secondary schools, by their programs, reveal the extent of pupil participation in the general defense activities. Many have included conservation campaigns and collection of needed waste materials, often in cooperation with local efforts. The schools take part in regular war stamp purchases and in many more of the community wartime services.

Through wholehearted participation in these new activities and practices which contribute to the realization of the nation's objectives, the school may find not only that the services rendered are of major importance as a war effort but also that the quality of education received by the pupils has thereby been definitely improved.

[*William C. Reavis is Professor of Education at the University of Chicago. Reported from the* Bulletin of the National Association of Secondary-School Principals, *XXVI (October, 1942), 86-91.*]

THE IMPROVEMENT OF HANDWRITING

WILLIAM H. JOHNSON

In the Elementary School Journal

THE general objectives in the teaching of handwriting have been universally accepted: To bring about an effective use of handwriting as a tool in meeting the everyday needs of the child, and to enable him to achieve the legibility and speed necessary for his future educational and vocational success. Despite the fact that the many different handwriting systems in use have been expressly designed to carry out these two general aims, criticism of the poor handwriting of school graduates has increased rather than diminished. In 1937 the Chicago schools conducted an investigation to discover how far these criticisms were justified. Sixty-five hundred samples of children's handwriting were secured from Grades III A, V A, and VIII A and scored on the Ayres Measuring Scale. Three commercial systems of penmanship were represented as well as a group of pupils taught by no particular method.

The number of years of retardation disclosed ranged from 1.1 for Grade III A under System A to 4.4 for Grade VIII A under System C. Pupils taught by no specific system were better writers than those taught by System C. All grade averages were below the minimum standards of quality except Grade III under Systems A and B. The pupils did not increase proportionately in legibility as the grade level advanced. Many factors may have contributed to this deterioration but, whatever the reason, the fact that third-grade children, comparatively speaking, were better writers than eighth-graders signified an inadequate attention to handwriting in the intermediate and upper grades. It might be added that the findings of the Chicago study agree substantially with reports of similar investigations in other localities.

Since the results of this survey indicated that none of the practices of teaching handwriting in the Chicago schools were achieving satisfactory results, it was decided to submit the subject of handwriting proficiency to further study. Handwriting laboratories were set up in 16 schools. The materials used in the workshops were developed with the aid of the assistant director of textbooks, who also served as technical adviser. The classroom work was supervised by the principals of the laboratory schools under the chairmanship of a district superintendent. Further assistance was given by the handwriting specialist from the Chicago Teachers College who gave full time to the planning and guidance of the project.

In general, the aim of the study was to discover those conditions which contribute to habitually good performance in writing and to the

progressive improvement of this important skill. Underlying the project were certain guiding principles: (1) Learning is a unitary experience for the child and requires teaching methods and materials which induce such integration. (2) Pupil interest is fundamental to economical learning. (3) The needs and abilities of the individual child should constitute the basis for the measurement of his school progress.

In accordance with these principles, criterions were drawn up by which to test the experimental methods and materials which were to be developed. These included (1) ease and economy of learning and teaching; (2) legibility with reasonable speed; (3) functional content; (4) application to writing needs in all school activities; and (5) high interest value.

The work was begun in 1939. Over a period of two and a half years the workshop schools used the experimental forms, methods, and materials and evaluated their effectiveness in meeting the objectives of handwriting instruction. Various types of materials, planographed and arranged in textbook form, were issued to the workshop schools where their usefulness and interest appeal were studied. The practice materials were revised from time to time as suggested by classroom teachers or by the results of a continuous testing program. Samples of pupils' handwriting in various writing situations were collected and analyzed frequently throughout the experiment.

It was found that handwriting is most successfully taught when the instruction is directly related to the actual needs of the pupils in other writing situations, and when the methods employed make learning purposeful to the pupil. Out of the practice, testing, modification, and retesting during the course of the experiment a definite program built around the child and his need for written expression has developed.

All instruction in handwriting should recognize that learning to write is a highly individual matter. Since the child's first school activities are concerned chiefly with learning to read, it is desirable that his first experience with writing should parallel actual reading situations and meet reading needs. Manuscript writing was introduced in Grade I because it is the easiest means of satisfying the child's desire to write, and it aids the process of learning to read. Children usually enter school with a strong desire to read and write. The chief problem of the teacher is to foster this interest in writing without yielding to the desire to produce uniform results in a group of children. Actually, there is no real need for the writing tool in school until Grade III, when content subjects are established. Since manuscript writing is well suited to primary grade activities, the complicated process of learning cursive forms can con-

veniently be delayed until their use is important and economical. The change to a more rapid form of writing is indicated when the child finds manuscript too slow to serve his purposes and when he displays sufficient muscular control to produce the rhythmic movements required in cursive writing. In the Chicago experiment it was found that, given suitable materials and guidance, children experienced no difficulty in making the transition from manuscript to cursive writing.

Experimental materials were constantly studied for appeal to child interests. The first materials given the child were built around familiar experiences and were introduced at a gradually increasing rate of difficutly. Illustrations became a special feature of materials in Grades I and II. Colored pictures add as much enjoyment and interest to handwriting textbooks as they do to reading materials.

Definite procedures were followed to enable the child to find a real purpose in every practice period. The children came to look on the regular practice period as an opportunity to improve the written work in other subjects.

Teachers were enthusiastic on the value of the correlation provided in all the experimental texts. In place of isolated words, phrases, and sentences, unrelated to the child's interest or ability, materials were used that were vital and familiar. Formal drill exercises, such as "ovals" and "push-pulls" were not used, for it was found that children responded best to a situation where the practice or drill had a satisfying goal.

The most important contributions of the study were (1) the use of illustrations, (2) the provision of special methods and materials to effect the transition from manuscript to cursive writing, and (3) the use of practice materials drawn from the child's own experience and carefully selected to conform to grade and vocabulary level.

Two general observations on the Chicago study seem applicable to the handwriting problem wherever it exists: (1) improvement in writing is steady when the child uses for comparison his own previous work and the examples in his textbook; (2) the amount of time spent in practice is less important than the effort given by every teacher to the development of a writing consciousness.

[*William H. Johnson is Superintendent of the Chicago, Illinois, Public Schools. Reported from the* Elementary School Journal, *XLIII (October, 1942), 90-96.*]

ELEMENTARY SCHOOL CHILDREN AND THE WAR

ANNE S. HOPPOCK AND THOMAS J. DURELL

In the New Jersey Educational Review

THE war is bringing many new problems to the elementary classroom teacher. Should the increasing number of requests of the community for help from children be granted? Should the radio be tuned to war news or are children already hearing too much about war? What should we teach about enemy nations?

First of all we must recognize that this war is an adults' war. We should not depend on the contributions of young children to win it. The welfare of the nation requires that we do not. We should help young children now to lay the foundations of physical and emotional health and of social and intellectual effectiveness which will make them capable of handling the tremendous problems of the postwar world. To this end they must be protected as much as is humanly possible against anything which interferes with their normal growth.

Any activity suggested for children should be examined with extreme care to see that it does not harm them or waste their time. *Unless an activity is desirably educative it should not be imposed on children.*

Using children in parades is an example of unnecessary exploitation. Building adult morale and stimulating adults to do their duty do not seem to be legitimate responsibilities of childhood. Long, unproductive hours of preparation, over-excitement, and long periods of waiting in line and marching are obviously undesirable.

Pressure to buy bonds and stamps, through such devices as individual sales charts in each room, through comparisons among rooms and schools, and through public recognition and praise of leaders, should be avoided. Children who are unable to buy stamps because their parents just don't have the money may feel pilloried before their companions through no fault of their own; they are almost certain to have a sense of insecurity. Other children who buy many stamps with money from their parents receive praise to which they are not entitled and so acquire a false sense of values. The wisest procedure seems to be to have children discuss and learn to understand the reasons for buying stamps and then let them buy stamps at the post office (or at the school if more convenient) as other citizens do.

There are some contributions children can make which will develop social competence and satisfy their desire to "belong." When this desire is voluntary and not caused by pressure or other artificial stimulus, there is real purpose and interest which may be directed into activities resulting in real social growth. Children may learn the

meaning of personal sacrifice, of subordinating self for a cause, when, for example, they voluntarily give up some of their play time to help in salvaging scrap materials, or when they share the limited amount of sugar by foregoing an extra spoonful on their cereal.

Teachers must know their children and help them to adjust to the extraordinary strains and tensions to which they are exposed. The insecurity of children is often intensified by the example of grown-ups who show worry or fear. Teachers can, to some extent, offset the bad effects of a tense home environment by their own serenity and by creating and maintaining a cheerful, relaxed atmosphere in the classroom. Now more than ever children need a maximum of play, music, rest, cooperation, and affection.

The attitude of children toward the enemy also is important. It is becoming apparent that a permanent peace requires some sort of world organization participated in by all nations and making the good things of life available to all. It is vitally important then that our children who will be the adult citizens of the post-war world should not be taught to hate. World brotherhood will not grow from the seeds of hatred. A great lesson of this war is that all the people of the world must learn to live together in justice and understanding.

There are lines along which children's interest can be utilized at different levels of maturity. Rather than an intensive study of the course of the war, the major aim should be to lift children's thinking from the blood and agony of the present to a dawning understanding of how a better world may emerge. This would apply especially to older children.

A normal, happy childhood is essential to sound personality development and war should not be allowed to interfere with this development where we can prevent it. Children inevitably are being affected by the war. The job of the elementary school is to guide children's interest and concerns into productive activities that will aid their normal growth. The school should avoid any effort to stir children's emotions, to stimulate them to concern about the war beyond that which life is forcing on them. Teachers can make their most important contribution to the nation by thus safeguarding children.

Anne S. Hoppock is Assistant in Elementary Education and Thomas J. Durell is Assistant Commissioner of Education, New Jersey State Department of Education. Reported from the New Jersey Educational Review, *XVI (November, 1942), 52-53.*

A HIGH-SCHOOL FRESHMAN LEARNS TO READ AND WRITE

HELEN M. ROBINSON AND JEAN F. SAVERY

In the Visual Digest

A TOTAL nonreader at the high-school level is comparatively rare. It may be remembered that early writers on remedial methods defined a nonreader as a child of normal intelligence who in spite of the opportunities to do so had failed to learn to read. It is difficult to understand how a normal child could resist reading instruction for eight years. To further complicate the picture, the child, except for the laborious formation of the letters of his name, was a nonwriter. The reader may feel that the chronicling of so rare a case will prove of little practical value to teachers. It is hoped, however, that the record may prove interesting, and also that some aspects of the treatment may throw light on the perplexing case which every teacher sometimes encounters.

During his first week in school Joe was reported to the reading department because he was unable to fill out blanks required of all freshmen. The teachers described his attitude as embarrassed and disturbed, but manly and sensible withal. Those to whom Joe confessed that he could neither read nor write were appalled, and really disinclined to believe him. The reading department, it must be confessed, received him with the mixed emotions of sympathy and apprehension.

The first step in the diagnosis consisted of a friendly talk with Joe, during which he was quiet, well mannered, unemotional, and gave evidence of the mature attitude toward his disability which was to characterize his response throughout the remedial work. He stated frankly that he could read no words, and could write only his name, and the numbers to ten. In the same matter-of-fact vein he volunteered other helpful pieces of information. His brother, he said, had been taught to read in his sophomore year by "the special teacher," and had also had trouble in learning to write. The parents hoped that Joe too, could learn, and he himself believed that he could! One sister read well, and by reading assignments to him had assisted him through the elementary school. Joe liked school, and his teachers, although he wished that they had helped him more, so that he would have learned to read. During his first interview it was noted that Joe's speech was somewhat slow and halting, and that the speech sounds were poorly made. His vocabulary appeared extremely meager.

In subsequent chats with Joe it was found that little reading is done in his home. The various parts of the picture fitted together to reveal a rather humble home, and hard-

working, foreign, though English-speaking parents. Joe had always been healthy, and aside from keenly feeling his lack of reading ability, all seems to have been right with the world.

Testing procedures followed. A Stanford-Binet placed his intelligence at the lower end of the normal range. A nonverbal test gave him a somewhat lower rating. A visual screening examination revealed no visual defects. He is right-handed and right-eyed. When presented with a preprimer, he recognized only the following words in five pages: *a, no, the,* and *I*. The results of an auditory discrimination test showed that Joe failed to discriminate properly both vowel and consonant sounds. Kinesthetic memory for letters was totally lacking. In a test for visual memory of forms he was able to reproduce all the single forms exposed to him for one-tenth of a second, and some of the double forms.

We have here a boy of low average intelligence who is healthy and appears to have a good attitude.

The low average intelligence would not have prevented his learning to read except that this boy, without kindergarten experience, entered first grade at six years of age. From our present evidence on the subject of reading readness, we can surmise that the child was not ready for reading experiences when they were first presented to him. His experience background probably was meager, coming as he does from a humble home where the language level is low.

At 14, Joe's attention span is long, his motivation is high, and his work habits are excellent. While again one can only surmise, one feels that they perhaps always have been.

The first step in Joe's re-education was training in visual perception and memory of forms. This was accomplished by means of a projector fitted with a quick shutter device. Geometric forms traced with ink on glass slides were projected on the wall. After a few days of training, he could reproduce double forms which were exposed to him for one-tenth of a second. One- and two-letter words from the Dolch list were then presented. When triple forms could be accurately reproduced (which took approximately two weeks) three-letter words were given. Perfect mastery of four forms required a month's practice, and was followed by the presentation of four- and five-letter words from the same list. Gradually all the 220 words were mastered.

When Joe could both reproduce and call the short words of the Dolch list from the slides, he was given the same words on cards for rapid calling practice, the technique which is labeled the "See-Say" method. The training continued in this order: when triple geometric forms were mastered, three-letter words were given on the slides; when three-letter words on slides were written

and called correctly, cards containing the three-letter words were given. After four forms and four-letter words were accomplished, the form perception training was discontinued. Daily drill with the cards was kept up for several months. Training in writing letters paralleled the form perception training and the drill by the "See-Say" method.

After two months of the work described above, Joe was given a preprimer. He now had a sight vocabulary of over 200 words which he could recognize in print. Nouns were called for him. He rapidly finished this book, and was given in order a primer, then the first and second readers of the series. Joe was so happy to be reading that he did not resent the primer material. All reading was oral.

At the end of three months, the short sounds of the vowels were given to provide him with a means of attack on new words. Phonics were difficult for Joe, although he liked the growing feeling of security provided by increasing aptitude in sounding. When the short sounds had been learned he was given consonants and a few phonic rules.

Silent reading was begun in the fifth month. A workbook was used to insure comprehension of the material, which Joe liked and over which he labored diligently. Although he read haltingly, word by word, he was enormously pleased.

During the sixth month, silent reading took precedence over oral reading, although some time each day was given to the latter. Phrases were underlined in an effort to produce rhythmic reading. The problem during this stage was to prevent him from sounding out all words.

In this, the seventh month of Joe's training, he is reading fourth-grade material, slowly it is true, but with good comprehension. He still has great difficulty in remembering words. Sight words are frequently forgotten, as are the vowel and consonant sounds. He is learning to spell. During one hour each day spent with ten students in a remedial English class, Joe has acquired the rudimentary concepts of English grammar. He can pick out the verb, the nouns, and the modifying words in simple sentences. He is making impressive gains in his speaking vocabulary. Soon, it is hoped, Joe will acquire more fluency in the reading of fourth-grade material. The *meaning* will be constantly stressed, and he will be encouraged to guess at the meanings of unknown words.

[*Helen M. Robinson and Jean F. Savery are from the University of Chicago. Reported from the* Visual Digest, *VI (Fall, 1942), 21-23.*]

MAKING THEORIES WORK

MARY HOUSTON DAVIS AND ELIZABETH LAMAR ROSE

In the High School Journal

THOSE of us who have had the privilege of working in progressive schools and organizations easily fall into the belief that our experience is only a small part of a larger enthusiasm and that schools throughout the nations are consistently and constructively seeking to improve instruction. Recent surveys show the naive folly of such a generalization. They show, for the most part, appalling dominance of old patterns and persistence of worn-out and unrealistic teaching practices. A few schools have had enough pioneering spirit to dare new things, but most of our schools have been afraid to leave the old familiar roads. Their teachers are simply textbooks wired for sound. Classes are teacher-motivated and teacher-controlled. The children are passive listeners, "doing time" in school, still singing the old end-of-year chorus, "No more pencils, no more books, no more teachers' sassy looks."

Yet the teachers of these schools are often well acquainted with the language of more forward-looking educators. Most of them can talk quite glibly about newer practices.

What is the cause of this tragic gap between theory and practice? In our opinion there are three main reasons: First, teachers, particularly at the beginning of their career, often revert to the type of teaching they themselves have had rather than practice the methods which they learned about in teacher-training institutions. This is simple and human enough. It is easier for people to teach as they were taught in high school rather than to attempt newer practices. Beginning teachers are especially guilty of this understandable sin, but they are not alone. Every one of us who has ever faced a classroom has at one time or another fallen into this indulgence.

The second cause of the gap between theory and practice results from the way most theory is presented apart from practice. More demonstration work is needed in all aspects of teacher education. Methods courses which ignore the necessity for specific illustrative subject matter are almost meaningless except to persons interested only in methods *per se*. There are such people, certain linguistic specialists, for example, whose interest in word endings stands quite apart from any concern for those words in literature or common parlance. These people may be scholars of importance, but they are seldom teachers of children. Teachers of children are constantly aware not only of the ends toward which they are progressing but of the definite means by which they achieve those ends. At all times, in teacher education, we must have actual material for which the method and the theory are only patterns. It

is interesting to watch a class in guidance and personnel sit up and take notice when actual case studies are used to demonstrate theoretical problems. Could we teach chemistry without a laboratory, or carpentry on a drawing board? How foolish it is to talk in any but the most concrete terms on a matter as important as education.

A third gap between theory and practice results directly from the dosage given. Just as we believe that we must begin with the individual child and build bit by bit, so we must begin with the individual teacher. We must start where this teacher is and lay stone on stone. Educators who prepare teachers often indulge in the optimism that their pupils are so imbued with the progressive philosophy that they are going forth to illustrate it in all its glorious totality. But no presentation of any idea about what the new school is like has any real meaning to the new teacher who is to use that idea until it is translated into terms that are concrete and specific for him. For more than two decades we have talked about individual differences and individualization of the curriculum. But we have heard little or nothing about the need for individualization in the preparation of teachers. Yet this is an extremely important factor in the achievement of any real progress in democratic education. We must begin with what the individual teacher has and what his potentialities are. Even after the teacher gets the idea and begins trying it out in his daily work, he still needs help. Both inservice and preservice teachers must be aided in ways other than those commonly in use.

We wish that critic teachers would use much more of workshop methods in helping student teachers. We also wish that supervisors would use the same technique in working with inservice teachers.

Here is Miss Brown. She is not entirely hypothetical. She teaches in an industrial city. Many of her pupils come from foreign homes. Miss Brown has nice instincts about literature and about young people. She has been vaguely troubled for a long time about the perfunctory way her city syllabus asks her to teach—two weeks on the short story, two weeks on lyric poetry. But drastic changes in the curriculum would be quite impossible for Miss Brown—or for several Miss Browns banded together. Changes in the curriculum of this school system must be made slowly. Moreover, Miss Brown would not know how to make changes if she had permission to do so. Her wish to do a more honest job in terms of her boys and girls is little more than a vague but sincere uneasiness. She has emerged from a summer course with a deep conviction that her work, to be real, should be intimately related to the total life pattern of her boys and girls. But her summer course gave her no inkling

of how she should change the reading, writing, and speaking activities of her pupils to achieve this end.

Miss Brown is about to begin a year's work with her varied crew. The syllabus says there should be "a unit on lyric poetry from the Bible." She builds a recitation period on the 137th Psalm. She herself has been sincerely moved by the beauty of the lines. She makes up several questions about the aesthetic quality of these verses and, because she feels she must add something substantial, she asks the students to find out what event in Jewish history is referred to in this Psalm. She plans to ask what the pupils think the Jewish people felt when they said: "How can I sing the Lord's song in a strange land?"

Let us say that a hypothetical supervisor visits Miss Brown at this moment. He comments on the presence of several refugee children in the class and suggests that she ask what the line: "How can I sing the Lord's song in a strange land?" might mean to these recently uprooted young lives. Miss Brown catches on at once. She cherishes the idea. To her it is a nugget of purest gold. Here is a question intimately related to the lives of some of her pupils and meaningful to all of them. The 137th Psalm is poignant in its anguish of homesickness. She sees at once how this poem may be discussed and reflected on in ways that will foster deeper sympathies in the lives of her pupils.

Miss Brown tells the supervisor that her pupils will read other poems of homesickness: "Home Sweet Home," Browning's "Oh, to be in England now that April's here," and Brook's sonnet, "If I should die think only this of me." The supervisor comments favorably on her enthusiasm, but he wants to guide Miss Brown into a program closer to home than reading "There is a corner in a foreign field that is forever England." He suggests asking the pupils a question like this: "What things that you love do you think belong particularly to the place where you live?" Miss Brown seizes this idea as a motive for writing about familiar and loved places and things.

But the supervisor wants to give the lesson an even broader context. He suggests that this love of things because they are our own might be the central theme for units in American literature. He suggests the idea as a springboard reading about our folk heroes and the enjoyment of selections from our vast regional literature. *Silas Marner* and *The Lady of the Lake* may have a place in the education of young Americans but a study of American contemporary life is of much more importance to our pupils. *Our Town* is of more genuine interest to them than *The School for Scandal*—and every bit as good a play. *John Brown's Body* is not only better poetry than *The Idylls of the King* but it is much more honestly

valuable in terms of what our boys and girls need.

Even though Miss Brown had a wish to something better, she was going to take a selection from her syllabus and treat it academically. She needed help. Her supervisor gave her that help when he started with the thing she was doing and helped her to see that because the 137th Psalm was an honest human document it could be interpreted in a broader context than that of "the far away and long ago." While Miss Brown could benefit little from lectures on the need for curriculum changes in terms of her pupils' needs, she could progress in a very practical manner when helped in her own classroom. Her supervisor attempted no radically new procedures. He took what Miss Brown was doing and gave it a broader meaning.

Theories of education are too often too far removed from practical application, from the life they pretend to serve. The gap between progressive theory and practice, quite as much as the dominance of outworn patterns in the school, is an obstacle to the achievement of real progress.

[*Mary Houston Davis is an instructor in Brooklyn College, New York. Elizabeth Lamar Rose teaches in the Tuscaloosa, Alabama, High School. Reported from the* High School Journal, *XXV (October, 1942), 251-60.*]

TEACHERS who have traveled can aid in the war effort. The Office of Strategic Services of the government is seeking photographs showing the terrain of foreign lands which may possibly become theaters of war. All persons having photographs which show as backgrounds landscapes, harbors, beaches, docks, manufacturing plants, oil storage facilities, railroad stations, yards, and tracks should write to the Office of Strategic Services, Station G, Box 46, New York City outlining the nature of the pictures in their possession. Pictures should not be sent at this time. A questionnaire will be sent by the Office of Strategic Services to be filled in with complete details. Photographs requested for use will be returned on request. Silhouette shots of islands, air views of cities and harbors, or photographs taken from heights are particularly valuable.

A FUNCTIONAL MARRIAGE COURSE

HENRY BOWMAN

In Junior College Journal

ONE of the first and most important requisites in the process of planning and executing a marriage course is to take literally and seriously the simple fact that most young people eventually marry. Many curriculums seem to have been organized for celibates. And many "marriage courses" carefully avoid anything "tainted" with the personal or the functional. A coed in a well known college was asked recently what the marriage course she was taking was like. "Well," she said, "it started in January; it is now April; and we have finally reached the Industrial Revolution." A spinster "marriage teacher" in another school is quoted as saying that she carefully avoided any materials that the students might get mixed up with their personal problems.

When students desire vocational training, we give them training that is designed to help them in actual work situations. We do not assume that their needs will be met by a discussion of economic theory or of the Russian Revolution. Similarly, college students may learn much in the way of preparation for marriage without understanding a Hottentot's relation to his mother-in-law or the status of women in early Egypt. This is, of course, somewhat exaggerated. But the fact remains that students tend to take the terms "marriage course" and "education for marriage" literally, while many instructors have a tendency to follow in the well beaten, traditional, academic track. In short, the commonly accepted, sociological family course and the functional marriage course do not have the same objectives and cannot be combined without dilution and confusion.

In the organization of a functional marriage course we should use student needs and interests rather than subject matter as our point of departure. When we make an inventory of these we find that junior college students are interested in members of the opposite sex and desire their companionship. Most of them want to marry yet they may wonder whether a single person may live happily. They are aware of the necessity and importance of making a satisfactory choice of mate. Biologically ready for marriage, they must accept postponement. With the increased freedom between the sexes and the paucity of clear-cut social definition, young people are aware of the tug of war between their natural impulses and their desire to set satisfactory standards of behavior which will contribute rather than detract from their success in marriage. Petting is a potential problem on every date and petting may set the stage for premarital sexual relations. Students want acceptable

criterions on which to base their judgments. Many wonder how heredity and "background" may affect marital success and what can be done about those they consider to be "problem parents." Fears are more common than older persons realize and are frequently not expressed until after a long period of rapport building between student and instructor, yet they can plague a student so consistently and poignantly that his social adjustment is rendered precarious, his academic work suffers, and his future marital success is jeopardized. Students know it is important to learn better how to get along with other people both before and in marriage. Affected by America's preoccupation with sex, they lack adquate information which leads to confusion and sometimes tragedy. They want to know what part sex actually plays in marriage and what they can do about sexual adjustment.

An almost unbelievable number is not sure just how childern are born—questions about reproduction are legion. They are also sure having children must somehow affect a couple's marriage and they want to know how to make the best adjustment. They know that money is important in setting up a home and want to learn to use their incomes most satisfactorily. The economic role of the wife, they know, is important and they wonder about domestic and wage-earning wives. Students are keenly aware of the effects of the war on both premarital and marital adjustments. Their questioning in this connection is surpassed only by their fundamental desire to do what is best. Religion's relation to marital success interests them, and they need to know facts about divorce.

In addition to all these needs and interests are those of which the instructor can make his students aware, selected in accordance with his own personality and the point of view and circumstances and understanding of his students. The functional marriage course suitable for junior college students will be oriented toward student problems and the problems they will face.

This functional marriage course will discuss: (1) *Differences between men and women*—what they are and how they are produced—adjustment to them; woman's changing status; the double standard; how both sexes may improve the social adjustment. (2) *Reasons for marriage* will be pointed out; how the reasons change with social conditions and affect the individual; the normalcy of marriage; intelligent adjustment to "falling in love." (3) It will consider the *permanently unmarried;* their problems; singleness as an adjustment to life. (4) *Marriage versus life-long career;* facts about women's wage earning; arguments for and against; problems and adjustment to be made will receive consideration. (5) *When to marry;* the problems of early mar-

riage; college marriage; postponed marriage; marriage in wartime; child marriage; and legal marriage will be discussed. (6) On the subject of *choosing a mate,* qualities desirable; physical attraction; heredity, difficulties of choice, marriage "mixed" as to age, nationality, race, economic status, family background, education, intelligence, previous marital status, or religion will receive attention. (7) *Courtship* and its problems will include "getting acquainted" as well as petting and premarital sexual experience and its relation to marital success. (8) *Engagement*—how long and how intimate—will receive attention, as well as broken engagements. (9) *Wedding and honeymoon*—what they are and mean—with their problems; the interest of the state in the wedding; and secret marriage will be included. (10) Under the important head of *personality adjustment in marriage,* facts and principles involved in getting along with people; meaning and normalcy of conflict in marriage; criterions of marital success; social factors influencing success or failure in marriage; contribution of community resources; individual characteristics affecting success or failure; sex in marriage; influence of the war; and sources of information and counsel will find a place. The course will include discussion of (11) *money and its role in marriage;* (12) *the use of leisure time.* Important topics under (13) *reproduction* will be the facts of reproduction and child-birth or a couple's adjustment to childlessness, and family planning; and adoption. (14) *Divorce;* and other forms of breakdown; attitudes toward divorce; and suggested remedies will receive consideration.

No plan of marriage education may be considered fully adequate if it depends entirely on classroom instruction even though that instruction be functional and individualized, and even though we take into consideration the contribution of other parts of the curriculum. In order to be prepared for marriage young people need not only a core of useful information and a set of satisfactory attitudes engendered by reading and discussion, but each individual should also have opportunity to take at least the initial steps toward the solution of personal problems. This suggests counseling facilities, which may not be considered part of a marriage course but may certainly be considered part of an adequate program of preparation for marriage.

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"LA DONNA E MOBILE"

VERA L. PEACOCK

In the Modern Language Journal

"*La donna é mobile.*" These gay, rueful words of *Rigoletto's* duke were never meant to apply to school teachers, at least insofar as their classroom techniques are concerned. And that is a pity. There, if anywhere, variation and a constant introduction of different devices and procedures are to be desired. We laugh at the professor who can be counted on to bring out the same jokes at the same points in his lectures year after year. Yet, it is a serious matter, too, when we consider how many teachers follow the same procedure day after day, use the same type of examination year in and year out, and even come to resent the minor changes in routine which are occasionally forced on them.

The devices suggested in this article are not presented as new discoveries or as original ideas. They are offered as means of varying conventional routines in the foreign-language class. It is hoped that some of them may serve to bring the materials of the daily lesson closer to the student's everyday life and interests. A third aim of a few of them is to correlate the foreign-language work with that in other subjects and to encourage the student to see associations between materials found in his different courses.

For *oral practice in the foreign languages,* monologues may be read by one student and acted in pantomime by others without previous preparation, debates may be held, or the material in the reading lesson simply dramatized. The Lord's Prayer, hymns, or Christmas carols, familiar in the mother tongue, may be learned. A series of simple commands may be given by one student to a number of others. The first student to complete all of them in order wins the contest. Comments may be made on flowers or other changeable décor and on slides as they are shown to the class. This will take careful preparation on the part of the participants. Exhibitions of any sort—bulletin boards, foreign crafts, stamps, pictures, or work of the students themselves—offer an opportunity for explanation by one student to the others. One student may relate a short mystery and then answer yes and no to questions of the others until someone guesses the solution. Stories, original or from the reading lesson, may be prepared to accompany puppet shows, and anecdotes and incidents may be told by students who also prepare questions to ask other members of the class.

To increase *vocabulary* there are the vocabulary and number games, cross-word puzzles, anagrams, flash cards, and spelling contests. The study of cognates is valuable. Use-

ful is a project in which each student gradually builds a vocabulary around some special interest. This may be combined with a project in written composition.

To aid in *pronunciation,* stress foreign names and words currently in the news. This offers a good opportunity to introduce information about the country, its customs, and leaders. Use records and also record students' progress on a series of discs. Recording machines are quite inexpensive now. Talks by students are useful—in English, history, music, and art classes—on pronunciation of proper names or foreign terms which occur frequently in those classes; or students may give assembly talks in which common foreign words and phrases other students ought to know are pointed out. The words could be on a blackboard or thrown on a screen.

For better *aural comprehension,* use frequent short dictation. One or two sentences each day are more effective than longer passages given infrequently. Use familiar material to encourage the large majority who always find dictation difficult. Invite other people to dictate occasionally to accustom students to the personal variations in the spoken language. Use foreign films, and recorded foreign speeches, news flashes, etc., taken from the radio programs on the school recorder.

Reading will gain more interest if it includes familiar materials, such as well known legends or the Bible, which by the ease of their comprehension give students a sense of achievement. Foreign magazines published in this country may be utilized. They provide excellent material for content reading after which students may give reports in the foreign language or in English. Also, the teacher may select excerpts from several articles in the same magazine and ask the students to identify and place the passages. This device can be used as a contest for individual students or teams. Reading assignments may be made according to the special interests of individuals or groups who are then asked to report to the class, through dramatization, talks, or other methods. Use a biographical dictionary or encyclopedia written in the foreign language. Students can be encouraged to look up materials for other courses in such reference works.

Written composition is aided by the reading aloud of simple familiar material in the foreign language before beginning to write. Thinking in the language is thus stimulated. Free composition on current topics or on subjects chosen by the students from their other courses is a good device. Correspondence with students of a foreign country or with students in a similar class in another community is useful. Try translating popular songs into the foreign language. Singing them afterward will give variety to the pro-

nunciation class. Have students prepare a newspaper or magazine in the language and write short skits to be played for the class. For the more elementary classes have your advanced students prepare crossword puzzles, word games, or culture tests.

In *examinations,* rotate the true-false, multiple choice, completion, and other types of tests. Model quiz programs on "Information Please" with the students divided into teams. Students may be encouraged to submit questions with answers for the quiz.

To *arouse interest,* have the students list foreign words found on shops, in advertising, or used as slogans; terms taken over by the fashion and cosmetic trades or on menus and articles on cookery. Ask the students to list quotations in the language from various magazines. The class may be divided into groups, each of which chooses certain magazines in which to search for quotations over a given period of time. The one with the longest list, of course, wins. The same type of group contest may be worked out for lists of references to historical or literary characters. Newspapers and even such sources as Ripley's "Believe It or Not" series yield good examples. Students may list references in other courses to the history, art, music, or literature of the country whose language is being studied. Radio programs in the language may be discussed, and foreign names or phrases heard in the movies, or movies laid in the foreign country may be commented on by the students. If foreign cemeteries are available visits may be made to them. The inscriptions on some of the old French, German, and Spanish tombstones are most interesting and lead to informative talks regarding the early settlements of these foreign groups in the region. It is interesting to encourage the calling of students by foreign names corresponding to their own. Culture tests may be given. If not given for grades, they are fun for most students. Invite foreign guests to speak or read in their native tongue or to tell the class about their country. Recognize all important foreign holidays and festivals with as elaborate authentic celebration of them as possible. Suggest that the students make foreign Christmas cards and calendars. Encourage students, while on vacations, to make observations pertaining to their subject and to tell the class about them in the foreign language.

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EXECUTING A FARM-MACHINERY REPAIR PROGRAM

GLENN BRESSLER
In the Agricultural Education Magazine

TEACHERS of agriculture have never before experienced such an opportunity for rendering community service as they now have in meeting the challenges of this war emergency. Agricultural programs in rural communities have been functional because they were able to throw off the cloak of traditional instruction and adapt their program to meet community needs. Strong vocational agriculture departments are found in those communities where the teacher has developed a flexible program, and programs now must be changed to meet this emergency.

A well conducted farm-machinery repair program is a splendid example of one type of service that can be undertaken to meet this emergency. In spite of difficulties and drawbacks to be overcome the writer felt that the repair of farm machinery was a real need of the farmer and recognized the fact that no other agency was in a better position to do the job than the vocational agriculture department in his school. He believes the following benefits were derived from the program: (1) A distinct contribution was made to the total war effort through reclaiming discarded farm machines and repairing and increasing the efficiency of machines which were in use. (2) A better farm machinery maintenance program was established. While only a small portion of farm machines were brought to the school shop, farmers in general were made to realize the need for, and the value of, good machinery practices on their part. (3) The training given all-day boys and young farmers developed their skill in managing mechanical equipment on their farms. (4) An increased possibility for greater community service by the vocational agriculture department was opened.

Courses were organized for all-day pupils, young farmers and OSY groups. Accomplishments of these groups included the repair of two corn planters, one spring-tooth harrow, two grain drills, two riding cultivators, two walking cultivators, three mowing machines, and two disk harrows. A summary of the jobs done on the mowing machines will serve to add significance to the accomplishments of these courses. On these the classes built up axles, treads on wheels, and inner and outer shoes; replaced two drive gears, one thrust gear, one pitman box, one set of roller bearings, half the number of guards and guard plates, worn clips, knife plates, and one set of dogs; took up lag on all machines, adjusted then for register; sharpened knives; made two new swath boards; and lubricated and painted the machines.

The writer supervised the three

groups of students and taught the all-day and young farmer groups. Two tradesmen, who were experts in oxyacetylene and arc welding as well as blacksmithing, were hired to teach the OSY national defense training group. Floor space was lacking in our shop for the handling of farm machinery but was solved by bringing the machinery from the farm into the shop for dismantling and then placing it in a large corridor next to the shop for repair.

In launching the new program the all-day group was organized first and this helped considerably in giving publicity to the plan. The out-of-school youth group fell into two categories—one interested in enrolling for the national defense training course in general metal work, which included the repair of farm machinery. It met four nights a week for a total of 15 hours per week. The second enrolled as a young farmer class and met one night a week for a period of 10 weeks. Within the all-day group sophomores and juniors received instruction during their regular shop period which amounted to one hour and 50 minutes each week. The regularly planned classroom instruction for seniors was discontinued and full time given to the repair of farm machinery. It is worthy to note that the maximum use was made of the shop facilities available in the school, not only during the day but every night in the week.

The obtaining of machines for repair required surprisingly little effort. A few news articles and the enthusiasm of the boys helped and soon more than enough machines were brought to the shop for repair. On a visit to the home of a senior boy arrangements were made with his dad to bring to the school one grain drill, one two-horse walking cultivator, one mowing machine, and one corn planter. Some were no longer in use and others were operating poorly. The day this machinery arrived seniors were attending their regularly scheduled class in agriculture. Instruction ceased when the truck arrived. "Let's go out and unload that pile of junk," was one remark heard in the room. Class disbanded and the machinery was unloaded, dismantled, and placed in the corridor. The boys were anxious to get started. They had a vision that this so-called pile of junk could be repaired, thereby saving money for the farmer. At the same time they were meeting a need of this war emergency. Yet the writer was still concerned about the teaching values. Will the repair of this machinery impress on the boy and his dad the fact that machinery must be constantly cared for and maintained? Without attaining this objective the teaching program would fail. With this idea in mind we launched into the program. Instruction was given in a very informal manner for all the groups. In the OSY group, instructors were

able to give closer supervision to individuals than was the case in the other groups. Boys assigned in groups of three or four, checked a machine for needed repair parts, completely overhauled it, replaced the worn parts, adjusted, painted, and lubricated the machine. It was the job of the instructor to advise each group on a plan of procedure for doing the necessary jobs. This required his becoming thoroughly acquainted with the working relationships of each machine before the class met. Jobs which required the skill of an expert mechanic, such as building up bearings and axles with the oxyacetylene blow torch or arc welder were left to the young men in the national defense training classes and these made excellent practice exercises for the application of welding principles. Pupils were responsible for the repairing of a specific machine, which resulted in excellent workmanship. Each group tried to outdo the other. It was required that each boy analyze the working relationships of the machine. Only by following this procedure were the boys and young farmers able to learn the principles of operation in each machine and how repairs must be made. It is this type of training that we as teachers are interested in rather than the newly repaired and painted machine.

Insofar as the repaired machinery is concerned as a product of the farm shop the real truth is not told until after the farmer puts the machine into use and finds it works satisfactorily. The writer took his senior group to the farm where the first load of machinery had been obtained. It had been overhauled and returned to the farm. The farmer was trying out the grain drill which the boys had repaired. He greeted us with a smile and could hardly wait until we came within talking distance for him to express his appreciation for the excellent job that had been done While passing this farm on later occasions, the writer finds those newly overhauled and painted machines under cover and not sitting out behind the barn to rust, as was previously the case. This boy and his dad have learned the lesson of caring for their farm machinery.

The product of the school shop in the form of repaired farm machinery was an excellent one. However, the product of our teaching, which is the boy or young farmer, is the most important phase of the farm machinery repair program and must be our greatest concern.

[*Glenn Bressler is a teacher at Hollidaysburg, Pennsylvania. Reported from the* Agricultural Education Magazine, *XV (November, 1942), 92-93.*]

NEA ACTS IN TEACHER SALARY CRISIS

In the Journal of the National Education Association

As prices have risen, and as incomes in industry and agriculture have grown larger, teachers' low salaries have become even lower in comparison with other groups. Teachers have wondered what their patriotic duty was with respect to salaries. Teachers are aware of the causes and dangers of inflation; they know that increased buying power helps to push prices higher when civilian goods are scarce.

In recent months, two lines of action have been open to the profession. One was to refrain from asking for salary increases, because of the threat of inflation; the other was to take part in the general effort for salary increases to offset the rising cost of living. Teachers generally, during the past year, have followed the latter course. In this they were supported by the NEA.

The federal government has taken steps to control and slow down the rising spiral of prices and wages. Its policy is to stabilize, so far as possible, wages, salaries, and prices at the levels of September 15, 1942. But it has adopted the principle that wage increases are justified to meet increases in the cost of living, to correct inequalities, and to eliminate substandards of living.

The following recommendations summarize the position of the NEA in this matter:

1. *Salary increases in proportion to increases in the cost of living should be provided now.* The National War Labor Board has been granting such increases as a stabilization factor in settling wage disputes. It uses January 1, 1941, as a date from which to compute such increases, since the cost of living at that time was close to the average for the preceding six-year period. The estimated increase in the general index of cost of living since then is about 17 percent. The increase has been greater in rural communities than in the cities. The index of prices paid by farmers for commodities bought for family maintenance increased 26 percent between January 1941 and August 1942.

2. *Regular scheduled salary increments should be paid, but these should not take the place of cost-of-living increases.* Some boards of education have assumed that stabilization of wages and salaries means "freezing," and have suspended the normal increments on a salary schedule. This assumption is a mistake. Where different rates are provided for different levels of experience and qualification, these rates should be maintained. In places where the salary schedule provides annual increments, this practice has sometimes been cited as a reason for not granting cost-of-living increases. But the differing levels of a salary schedule represent normal, peace-time standards; a scheduled increment that was one of the terms of em-

ployment is not an offset against an increase in the cost of living that was not contemplated at the time of employment.

3. *Where salary cuts imposed during the depression are still in effect, predepression salaries should be restored and a cost-of-living adjustment made also.* During the depression, like most other persons, teachers had their incomes greatly reduced. Many of them have not shared in the general restoration of wage and salary rates which has occurred in industry. As early as 1940, factory wages equalled or exceeded those of 1929. During the past 18 months many teachers have been under the double handicap of a reduced salary schedule and a loss in purchasing power due to rising prices. The peacetime standards of these teachers will not have been reestablished until the salary cut has been restored and the cost-of-living adjustment made in addition.

4. *Substandard salaries should be raised to a defensible minimum, the actual figure varying somewhat in terms of local economic conditions and standards of teacher qualification.* While half the states now have minimum salary laws, the salaries are at very low levels. In 24 states in 1940 the average salary of teachers was less than $1200. This is less than the minimum salary established by Act of Congress for employees of the federal government and paid to unskilled laborers, elevator operators, and charwomen.

A list of goods and services needed to maintain a family of four at a plane slightly above the *minimum of subsistence* is priced regularly in a number of cities. In June 1942, this minimum budget in the average city totaled $1575; the range was from $1460 to $1705.

In the federal service the lowest grade of professional and scientific service begins at $2000 and the salary for "full professional grade" ranged from $3800 to $4600.

There should be no delay in raising *at once* the indefensibly low salaries of teachers who receive less than subsistence incomes.

5. *Needed salary increases may be provided*: (a) *by a temporary wartime allowance;* (b) *by raising the present salary schedule; or* (c) *by drafting a new salary schedule.*

Where the existing salary schedule has been worked out with care and provided equitable treatment to the various groups within the school system, a temporary wartime allowance may be the most satisfactory method of adjusting salaries at the present time. The bonus may be given in the form of a lump sum or a percentage increase roughly comparable to the increase in the cost of living. The flat bonus plan gives a higher *percent* of increase to the lower-paid than to the higher-paid teachers. Many variations and combinations of plans are possible. Local factors should determine the type of increase.

If the existing schedule contains

serious inequities, if depression cuts are still in effect, or if there is no local salary schedule, the addition of a wartime allowance will be inadequate. Immediate efforts should be made to develop a sound salary schedule on which a cost-of-living adjustment may be superimposed. But temporary increases should be immediately granted, subject to readjustment when a fair salary structure has been worked out.

Further action by state legislatures is urgently needed to establish state minimum salary standards. In some areas, defensible salaries cannot be established without federal help.

In many communities the very maintenance of educational facilities is threatened. At a time when the schools are being called on for greater services, thousands of teachers, because they cannot maintain themselves on their present salaries, are being drawn away. If education is to contribute as it should to winning the war and the peace, the schools must be able to compete with industry and other government services for competent personnel.

[*Reported from the* Journal of the National Education Association, *XXXI (November, 1942), 231-33.*]

FOLLOWING are some important causes of death at school age (5 to 19 years old) as taken from 1940 Census data:

	Number of Deaths	*Percent of All Deaths*
Accidents	12,258	28
Tuberculosis	4,619	10
Heart disease	3,322	7
Appendicitis	2,945	7
Pneumonia	2,490	6
Nephritis	1,194	3
Diseases of pregnancy, child birth, puerperium	1,184	3
Cancer	1,162	3
Influenza	918	2
Acute rheumatic fever	798	2
All other causes	13,531	29
All deaths	44,421	

—*Safety Education.*

PERSONALTIES: **A. L. Threlkeld,** superintendent of the Montclair, N.J., schools, and member of the Editorial Advisory Board of the EDUCATION DIGEST, has been given a leave of absence to serve as national director of the Victory Corps, sponsored by the U. S. Office of Education. . . . **Samuel S. Hill** is the new president of Georgetown, Ky., College. . . . The new president of West Virginia Wesleyan College, Buckhannon, is **Joseph W. Broyles.** . . . **Thomas H. Quigley,** former professor of industrial education, Georgia School of Technology, has been named director of the U. S. Employment Service for Georgia. . . . **P. A. Killgallon** of Pennsylvania State College has been named director of the reading clinic, University of Oregon. . . . **G. S. Sanders** has been appointed president of Southwestern Institute of Technology, Weatherford, Okla. . . . **Johanna M. Hopkins,** principal of Public School 148, Jackson Heights, N.Y., has been named assistant superintendent of the New York City schools. . . . **John McSween** is the new president of Tusculum College, Greeneville, Tenn. . . . **Richard T. Parsons,** dean of men, has been appointed president of Pennsylvania State Teachers College, Lock Haven. . . . **Edwin F. Nelson** of Hartford, Conn., has been elected president of the National Association of School Business Officials. . . . **C. C. Carpenter** of Downey, Calif., has been named assistant county superintendent of schools, Los Angeles. . . . **George R. Stuart** is the new president of Birmingham-Southern College. . . . **Houston Cole** has been named president of the Jacksonville, Ala., Teachers College. . . . **John W. Dunning** has resigned from the presidency of Alma, Mich., College. . . . **E. E. Hanson** of the Lake Bluff, Ill., schools has been appointed dean of men of Northern Illinois State Teachers College, DeKalb. . . . **Goodrich C. White,** vice-president, has been appointed president of Emory University, Ga. . . . **J. D. Messick** is the new dean and head of the department of education of Elon, N.C., College. . . . **Norman O. Myers** of the Grove City, Pa., schools has joined the faculty of the Farmville, Va., State Teachers College. . . . **T. H. Etheridge** of Sam Houston State Teachers College, Huntsville, Tex., has been appointed dean of Sul Ross State Teachers College, Alpine, Texas. . . . **John R. McClure,** director of the bureau of educational research, College of Education, University of Alabama, has been named dean to succeed the late **James J. Doster.** . . . **James H. Dougherty** of Texas Christian University has been appointed professor of education at North Texas State Teachers College, Denton. . . . **N. L. Engelhardt** has been given a leave of absence from Teachers College, Columbia University, to serve as associate superintendent of the New York City schools. . . . **Dennis H. Cooke,** principal of the Oxford,

N.C., Orphanage School, has been named professor of school administration, George Peabody College for Teachers, Nashville, Tenn. . . . **Virgil K. Whitaker** has succeeded **Wayne F. Pratt** as superintendent of the Albuquerque Indian School and the U. S. Indian Industrial School, Santa Fe, N.M. . . . **E. J. Simon** of the Champaign, Ill., schools has been named state supervisor of vocational education for war workers for Illinois. . . . **George P. Rea** has been elected president of the Drexel Institute of Technology, Philadelphia, Pa.

DRAFTING of 18- and 19-year-old boys has resulted in a recommendation by the Educational Policies Commission that 17-year-old seniors of ability in high school be permitted to enter college immediately and earn freshman college credits and senior high-school credits simultaneously. According to George F. Zook, President of the American Council on Education, "The problem should not be considered one of saving the colleges but rather as a problem of insuring that a reasonable number of promising young men are given an opportunity to begin their college training before induction into the armed forces." The plan is expected to get under way the second semester in a limited number of institutions with most of the others adopting it by next fall. High-school authorities are to determine which seniors will be allowed to follow the plan. Presdent Roosevelt, in signing the bill, made the following statement, "I am causing a study to be made by a committee of educators, under the auspices of the War and Navy Departments, to enable the young men whose education has been interrupted to resume their schooling and afford equal opportunity for the training and education of other young men of ability after their service in the armed forces has come to an end." During the debate on the bill, Rep. Sparkman stated that the War Department intends to send qualified men to college from Army ranks. These men will be under military control and maintained by the Army. The Army will prescribe their course of study which will vary from 9 to 27 months or longer in the case of medical students.

ACTING on the request of the War and Navy Departments and Maritime Commission, the U. S. Department of Labor has dropped the age requirement for women in war industry to 16 under the authority of the Walsh-Healey Act which permits the secretary of labor to exempt employers on federal contracts from the 18-year age limit for women.

IN a special bulletin, Selective Service Director Lewis B. Hershey has notified all draft boards that "educational services are essential to the war effort." Considered essential are educational services in public and

private industrial schools, elementary, secondary, and preparatory schools, junior colleges, colleges, and universities, educational and scientific research agencies, and those producing technical and vocational training films. Director Hershey told local draft boards that in considering registrants engaged in educational services, they must take into account the occupation in which the men are engaged. The critical occupations in each of the educational services were named as follows: superintendents of elementary, secondary, and preparatory schools and teachers of aeronautics, biology, chemistry, mathematics, physics, and radio; presidents, deans, and registrars in junior colleges, colleges, universities, and professional schools and instructors in agricultural sciences, naval architecture, astronomy, bacteriology, biology, chemistry, dentistry, engineering sciences, geology, industrial management, mathematics, medicine and surgery, metallurgy, meteorology, aerial and marine navigation, oceanography, pharmacy, physics, physiology, and veterinary sciences; superintendents of public and private industrial vocational training and teachers engaged in full-time instruction in trade, vocational, and agricultural subjects such as machine-shop practice, aircraft, sheet-metal work, and similar subjects, and vocational rehabilitation.

THE publication office of *Secondary Education* magazine has been moved from New York City to Greenwich, Conn. Ernest D. Lewis will continue as editor and John J. Cunningham will be managing editor. The magazine, which is issued to all members of the Department of Secondary Teachers of the National Education Association and to others interested in secondary education, is published quarterly at $1.00 per year.

APPROXIMATELY 81,000 teachers participated in organized listening-discussion groups in the first National Teachers Meeting by Radio held September 28 under the sponsorship of the Educational Policies Commission. As a result of the success of the first meeting, a second National Teachers Meeting by Radio will be made available to stations of the National Broadcasting Company on Monday, December 14, from 6 to 6:30 P.M. (EWT). As was true of the first meeting, the first half hour will consist of a broadcast program which will lay the basis for a local discussion following the broadcast.

CONSERVATION measures applying to the operation of school buses were recently outlined by Office of Defense Transportation Director Eastman. Gasoline, tires, and spare parts for buses will only be certified if the conservation policies are carried out, according to Mr. Eastman. Main points of the policy are:

1. Elimination of unnecessary mileage with side trips eliminated and the bus stationed overnight near

the point where the first pupil boards the bus in the morning.

2. Transportation only for pupils and teachers residing more than two miles from the school unless the bus passes along roads anyway and the additional passengers do not require additional vehicles. Exception is made for the physically handicapped or those who would be subject to extreme danger or hardship.

3. Pupils must use common carriers where available.

4. School district boundaries should be disregarded if more economical bus operation is possible thereby.

5. There should be at least one-eighth mile and preferably one-quarter mile between stops.

6. School hours should be staggered if more effective transportation can be brought about.

7. Transportation contracts should be renegotiated to facilitate the reorganization of bus routes.

8. Bus use shall be restricted to the transportation of students and teachers to and from school.

9. Buses shall be used where feasible for the transportation of essential workers but not to the exclusion of essential school operation.

10. Equipment must be efficiently cared for and maintained.

11. School bus drivers shall be carefully selected and supervised.

12. Comprehensive studies of bus transportation shall be made on a county-wide basis as an aid in the reorganization of transportation.

An additional quota of 300,000 model planes to the 500,000 already requested by the Army and Navy has been given to the schools of the nation according to the U. S. Office of Education. The armed forces have made extensive use of the models already completed to train personnel to recognize every type of plane—ally or foe—instantaneously. They need hundreds of thousands more to supply every ship and military post with models for study. 12,000 packages of plans and instructions have been mailed to local directors of the model-plane project. Additional information may be secured from state departments of education.

Dates of the Month:

December 26-29, Music Teachers' National Association, Cincinnati, Ohio.

December 27-29, American Association of Teachers of Spanish, Washington, D. C.

December 28-30, National Business Teachers Association, Detroit, Michigan.

December 29-30, American Science Teachers Association, New York City.

December 29-31, Modern Language Association of America, New York, N. Y.

Dates of the Coming Months:

February 7-14, Negro History Week.

February 26-March 2, American Association of School Administrators, Saint Louis, Mo.

WHAT HIGH-SCHOOL STUDENTS THINK

In Fortune

FOLLOWING are verbatim questions and responses to a Fortune survey conducted by Elmo Roper and printed in the November issue. They are reprinted here by permission. Readers are urged to consult the survey in its entirety for an illuminating picture of high-school youth.—*The Editor.*

Which one of the following most clearly represents your opinion of the American form of government?

Our form of government is as near perfect as it can be and no important changes should be made in it 54.0%

Our form of government worked well in the past, but it needs to be thoroughly revised to make it fit present-day needs 39.6%

Democracy is no longer working well, and sooner or later we shall have to get an entirely new form of government 4.1%

Don't know 2.3%

Are there any on thsi list that you'd refuse to work with on a job if they had an equal position to yours and worked side by side with you?

	All Students	West	South
Negroes	21.4%	12.5%	49.3%
Jews	7.0	4.4	6.2
Chinese	5.0	8.1	8.2
Catholics	.5	.3	.8
Protestants, Irish, Swedes	.6	.6	1.4
Makes no difference	69.0	84.7	41.1
Don't know	3.1	.3	5.2

If you had to give up one of these things, which would you be least willing to give up? Which one would you be most willing to give up?

	Least Willing	Most Willing
Freedom of speech	46.0%	.9%
Freedom of religion	36.5	1.8
The right to vote	5.2	6.4
Trial by jury	3.8	3.9
The right to change jobs if you want to	3.0	20.8
The right to earn more than $3000 a year if you can	2.3	59.8
Don't know	3.2	6.4

Which one of these four statements comes closest to expressing your feelings?

Labor unions have done an excellent job for this country, and they should be given more power than they now have 8.7%

Labor unions have made some mistakes, but they have done a lot of good and the public should support them 49.4

Although labor unions have done some good in the past, they have gone too far and should be closely watched 33.8

Labor unions are a bad thing for the country and should be done away with 4.4

Don't know 3.7

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